ABERRATIONAL AND SUBSPECIFIC FORMS OF BRITISH LEPIDOPTERA

BY

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FOR INTERNAL USE ONLY

Volume 5

Sphingidae & Bombycidae

Part 1

Aberrational Forms

Sphingidae & Bombycidae Vol. I.

Index to Species.

(Species numbered "S & B").

Prosotin Schwarz. Ihr Pat.Ent.Verl.19.4.21.

2.

p.2. [illegible]

ab. obscurata. Stgr., Iris, Ent. I. 1917, 11. [illegible]
On the forewing the large light smoky-[illegible] area, is strongly blued-[illegible] indication on the costa.

ab. virgata Tutt, Brit. Lep. I [illegible]
Forewing with basal, median and outer areas very [illegible] lines pale, giving the general idea of the wing being divided into three transverse bands - basal, median and outer - the [illegible] blotch on outer margin just [illegible].

ab. intermedia Tutt, Brit. Lep. I [illegible]
[illegible]

ab. obsol. Tutt, Brit. Lep. I [illegible]
The shell-mark on the hind-wing shell [illegible] blending into the general colour.

ab. [illegible] Lempke, Tijd. [illegible]
[illegible] not normal.

ab. flavescens Tutt, Brit. Lep. I [illegible]
[illegible]

ab. [illegible] Tutt, Brit. Lep. I [illegible]
The hind-wing [illegible] closely [illegible]
[illegible]

ab. [illegible] Tutt, Brit. Lep. I [illegible]
[illegible]

ab. [illegible] Tutt, Brit. Lep. I [illegible]
[illegible]

ab. [illegible] Tutt, Brit. Lep. I [illegible]
[illegible]

ab. [illegible] Tutt, Brit. Lep. I [illegible]
[illegible]

[illegible]

[illegible]

[illegible]

ur

ab. cingulata Lemoke. Beaufortia. 1964. 11. p. 143.
Upperside of the abdomen with uninterrupted black rings; the usual black rings are lengthened so as to meet one another in the middle of the back.

ab. cingulata Lempke. Beaufortia 1964. 11. p. 143.
Upperside of the abdomen with uninterrupted black rings. These rings are completed by joining up on the back.

ab. caerulescens Meves. Ent. Tidskr. 1914. 35. p. 8.
Noticeably different in colour from the usual form. Upperside of thorax, abdomen and forewings much darker, strongly tending towards bluish. Hindwings almost black. (From the German translation on p. 39.)

[illegible]

[illegible]

[illegible]

[illegible]

tilis Linn. typical form -- [illegible]
This is Linnaeus's first description of the very [illegible]
[illegible] of fascicles, [illegible] in [illegible] it cannot be [illegible]
band, but Linnaeus in Sum. Veg. describing [illegible] must surely refer to this band on a specimen in which [illegible]
It could seem that the type [illegible] accepts "fascicles" meaning the [illegible] band, [illegible] refers to the reddish-grey [illegible] either side of [illegible] working, this to me [illegible] seem [illegible] having a [illegible] having been given to the other variable characters [illegible]

h.virescens-bipunctata Lucas. [illegible]
Ground colour green, although [illegible] centre and one on the inner-margin.

h.virescens-transversa Hutt. Brit.Lep.1898.p.[illegible]
Ground colour entirely green, [illegible] complete transverse median band.

h.virescens-maculata Hutt. Brit.Lep.1898.p.[illegible]
Ground colour entirely green, [illegible] very broken median band, central [illegible] marginal [illegible].

h.virescens-[illegible] Hutt. Brit.Lep.1898.p.[illegible]
Ground colour entirely green, [illegible] the inner-marginal part of the hind wing, [illegible].

h.virescens-[illegible] Hutt. Brit.Lep.1898.p.[illegible]
Ground colour entirely green, [illegible] central part of the hind wing [illegible].

ab.virescens-obsoleta Hutt. Brit.Lep.1898.p.[illegible]
Ground colour entirely green, [illegible] band entirely obsolete.

h.virescens [illegible] Brit.Lep.1898.p.[illegible]
[illegible] given Hutt as the author but Hutt did not [illegible] conjunction with bipunctata. [illegible] with the ground colour green, which are not [illegible] by Hutt.

ab.lutescens Hutt. Brit.Lep.1898.p.[illegible] Pl.
Of a very bright yellow colour.

ab.pallida-transversa Hutt. Brit.Lep.1898.p.[illegible]
Ground colour pale [illegible] grey, without [illegible] median band.

[illegible]

ab. pallida-mediomacula Tutt. [illegible]
= bimaculata Tutt. (nec. Clerck.) Brit. Lep. [illegible]
Ground colour pale [illegible] margin of the [illegible] marginal parts.

ab. pallida-centimacula Tutt. Brit. Lep. [illegible]
Ground colour pale [illegible] only the central part, the inner marginal part [illegible].

ab. pallida-marginomacula Tutt. Brit. Lep. [illegible]
Ground colour pale [illegible] part of the basal part, the central part [illegible].

ab. pallida-centrimacula Tutt. Brit. Lep. [illegible]
Ground colour pale [illegible] half reduced to a median mark, the inner marginal part [illegible].

ab. pallida-obsoleta Tutt. Brit. Lep. [illegible]
Ground colour pale [illegible] obsolete.

ab. brunnea-[illegible] Tutt. [illegible]
= brunnea-[illegible] Brit. Lep. [illegible]
Ground dark redbrown every trace of green colour [illegible] normal.

ab. brunnea-transversa Tutt. Brit. Lep. [illegible]
Ground colour red or red-brown, with complete transverse [illegible].

ab. brunnea-centrimacula Tutt. Brit. Lep. [illegible]
Ground colour entirely red or red-brown, with only the central [illegible] part, the inner-marginal part [illegible].

ab. brunnea-marginomacula Tutt. Brit. Lep. [illegible]
Ground colour entirely red or red-brown, with only the inner-[illegible] basal part, the central part [illegible].

ab. [illegible] Tutt. [illegible]
[illegible]

ab. [illegible] Tutt. [illegible]
[illegible]

ab. [illegible] Tutt. [illegible]
Ground colour [illegible]

ab. [illegible] Tutt. [illegible]
The ground colour of the [illegible]
[illegible]
[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

S.&B.5.
p.6

ab. obsoleta Clark, Ent. Rec. [illegible]
= [illegible] Bart [illegible]
= [illegible]
[illegible]
colour [illegible], tinged [illegible]

ab. [illegible]
[illegible] from the [illegible]
[illegible] or brown. [illegible]
the [illegible]
The coloured [illegible]
[illegible]
rather pale [illegible]-brown [illegible]

ab. [illegible]
[illegible]

ab. [illegible]
[illegible] in the right [illegible]
[illegible] on the left [illegible]
This, [illegible]
[illegible] the right [illegible]
an inter-marginal [illegible]

ab. [illegible]
Extremely small.

p.1. Smerinthus Latreille.

ocellata Linn. Syst. Nat. 1758. Ed. 10. p. 489.
=semipavo Retzius. Gen. Spec. Ins. 1783. p. 35.
= salicis Hubner. Samml. Eur. Schmett. 1796. pl. 15. f. 73.

aberrational forms etc.

ocellata Linn. typical form -- Linnaeus merely states "hindwings ocellated. The typical form is generally accepted as having the forewings grey or fawn, marked with olive-brown, the hindwings rose-pink with fawn margins, the ocellus bright blue with blue-black pupil, the whole enclosed in a broad black ring.

ab. pallida Tutt. Brit. Lep. 1902. 3. p. 427.
Forewings of a delicate grey, the markings fairly well-developed, the rosy tint noticeably absent. Hindwings also grey, slightly tinged with yellowish, the rosy red tint absent; the blue ring in the ocellus is "pale", or absent.

ab. albescens Tutt. Brit. Lep. 1902. 3. p. 426.
The ground colour of both fore and hindwings white, the markings and ocellus normal.

ab. rosea Bartel. Pal. Gross-Schmett. 1900. p. 176.
The somewhat lighter yellowish-brown ground colour of the forewings and the rose of the hindwings, is much more extended and brilliant than in typical specimens.

ab. cinerascens Staudinger. Stett. Ent. Z. 1879. 40. p. 317.
Forewings light ash-grey, with less prominent markings. The ocellated spots of the hindwings are largely filled up with milky-blue. A much paler form than the typical.

ab. rufescens Lempke. Tijdschr. Ent. 1959. 102. p. 73,
The ground colour of the forewings strikingly tinted with reddish, for the rest normal.

ab. deroseata Lempke. Tijdschr. Ent. 1959. 102. p. 74.
The red of the hindwings fails completely or nearly.
Lempke says the form cannot be the same as pallida Tutt because in the latter the blue ring in the ocellus of the hindwing also fails.

ab. grisea Closs. Int. Ent. Z. 1917. 11. p. 82.
Instead of red-brown the forewings are grey-brown, with normal markings. The margin of the hindwings with a yellowish tone.
This would appear to be little different from the typical form, examples with red-brown forewings have been named by Lempke as rufescens.

ab. flavescens Neumann. Int. Ent. Z. 1930. 24. p. 248.
Ground colour of the forewings yellow-grey, the hindwings pale yellow. The marking normal, sharply pronounced on the forewing.

ab. monochromica Cockayne. Ent. Rec. 1953. 65. p. 34.
The forewing is grey with no trace of the usual pink colour. The hindwing also pure grey without trace of pink.
The type is in the R. C. K. collection and differs greatly from pallida Tutt although by the description it would seem almost the same. In Cockayne's form the hindwings are of a uniform dark olive brown with no paling of the tint on the margins as in Tutt's form which show a yellowish tint.

ab. brunnescens Lempke. Tijdschr. Ent. 1959. 102. p. 73.
On the forewings the dark parts are of a beautiful warm pale brown, for the rest normal.

ab. uniformis Lempke. Tijdschr. Ent. 1959. 102. p. 74.
The base of the forewings is almost as dark as the colour in the outer half, so that the wings become much more uniform in colour but the markings remain clearly visible.

ab. diluta Closs. Int. Ent. Z. 1917. 11. p. 82.
The marking of the forewings washed out and very little contrasting, so that the black discal spot stands out strikingly distinct. This spot is on the postmedian line.

ab. kainiti Knop. Ent. Z. 1937. 51. p. 263.
Upperside of the hindwings weak reddish-grey with the eyes blind, not centred. Forewings with the entire upper central area unicolorous red-grey. From costa to inner margin there are three brown, and one grey, lines, the central one as a row of spots.
Tha main character would appear to be the pale hindwings with blind eye spots.

ab. ollivryi Oberthur. Lep. Comp. 1920. 17. p. 7. pl. 503. f. 4190.
On the hindwings the ordinary peacock ocellus is non-existant. In its place there is a circle denuded of scales with a vitreous brown appearance, crossed by the nervures which are black-brown. The wings are light brown with a little rose towards the costa.
The figure shows the forewings also aberrant, the costal pattern being broken up into spots and the usual transverse lines more or less absent. The main character would appear to be the scaleless ocellus of the hindwing.

ab. caeca Tutt. Brit. Lep. 1902. 3. p. 426.
The ocellus of the hindwing replaced by a triangular dark spot.

ab. biocellata Lempke. Tijdschr. Ent. 1959. 102. p. 74.
The eye-spot on the hindwings is crossed in the middle by a horizontal black bar, so that it contains two blue spots.

ab. parvocellata Lempke. Tijdschr. Ent. 1959. 102. p. 75.
The eye-spot on the hindwings is distinctly smaller.

ab. caerulocellata Lempke. Tijdschr. Ent. 1959. 102. p. 74.
The black centre of the hindwing ocellus is so strongly covered with blue scales, that it has nearly disappeared.

ab. viridocellata Lempke. Tijdschr. Ent. 1959. 102. p. 74.
The ring round the hindwing ocellus pupil, normally blue, is greenish.

p.1. Laothoe Fabricius.

populi Linn. Syst.Nat.Ed.10.1758.p.489.

aberrational forms etc.

populi Linn. typical form -- wings grey,the base of hindwings ferruginous. Forewing with white spot.

ab.pallida Newnham. Church Stretton Macrolep.1900.p.129.
= pallida Tutt. Brit.Lep.1902.3.p.469.
Whitish-grey,much paler than the type form.
Tutt's pallida was whitish-grey,often with a faint yellowish tinge,the markings usually weak.

ab.pallida-fasciata Gillmer. Arch.Ver.Freund.Nat.Mecklenburg.1904.58.p.70.
White-grey,pallid.The central,and marginal area below the apex,paticularly dark coloured.The rusty spot of the hindwing strongly marked.

ab.subflava Gillmer. Ill.Zts.Ent.1902.7.p.377.fig.p.376.
Unicolorous clay-yellow,of the colour of a freshly broken tile.Without marking,only the basal spot of the hindwing weakly rust-coloured.

ab.rufescens de Selys. Ann.Soc.Ent.Belg.1857.1.p.42.
Pale reddish ground,the colour of Smerinthus quercus.
This is the original description,the markings are not mentioned.

ab.fuchsi Bartel. Pal.Grossschmett.1900.2.p.193.(nom.nov.pro rufescens Fuchs.)
= rufescens Fuchs. (nom.preoc.de Selys.) Jahrb.Nass.Ver.Nat.1889.42.p.204.
Delicate fox-red or rufous.This colour is particularly noticeable in the marginal and central areas of the forewing and on the margin and around the apex of the hindwing.

ab.ferruginea Gillmer. Arch.Ver.Freund.Nat.Mecklenburg.1904.58.p.70.
Brown,or red-brown,often suffused with flesh colour to purple.Without markings, all areas unicolorous.The rusty spot of the hindwing duller.

ab.ferruginea-fasciata Gillmer. Arch.Ver.Freund.Nat.Mecklenburg.1904.58.p.70.
Brown or red-brown,the central area,and marginal area below apex,particularly dark coloured and contrasting.

ab.rufa Gillmer. Arch.Ver.Freund.Nat.Mecklenburg.1904.58.p.70.
Fox coloured or red-yellow,without band marking,all areas unicolorous.The rusty spot of the hindwing duller.

ab.rufa-diluta Gillmer. Arch.Ver.Freund.Nat.Mecklenburg.1904.58.p.70.
Fox coloured or red-yellow,the band marking blurred or indistinct.The rusty spot of the hindwing duller.

ab. tremulae Borkhausen. Rhein Mag. 1793. p. 649.
Unicolorous light grey, without markings. The hindwings with the russet basal spot extremely weak.

ab. cinerea-diluta Gillmer. Arch. Ver. Freund. Nat. Mecklenburg. 1904. 58. p. 69.
Light grey, the band marking blurred or indistinct, the rusty spot of the hindwing duller.

ab. borkhauseni Bartel. (nom. nov. pro tremulae Glaser.) Pal. Grossschmet. 1900. 2. p. 194.
= tremulae Glaser. Neu Borkhausen 1863. p. 83. (nom. preoc. Bork.)
Greenish whitish ground colour with weaker markings, usually with the russet spot of the hindwings almost obsolete.

ab. roseotincta Reuter. Fort. Macrolep. Fauna Finland. 1893. p. 20.
Rosy tinted with the median fascia ferruginous.

ab. grisea Gillmer. Arch. Ver. Freund. Nat. Mecklenburg. 1904. 58. p. 69.
Deep dark grey or deep slate-blue possessing a rosy pink which quickly loses its purple sheen in collectioms. The band markings all absent, all areas unicolorous, the rusty spot of the hindwings duller.

ab. grisea-diluta Gillmer. Arch. Ver. Freund. Nat. Mecklenburg. 1904. 58. p. 69.
Deep dark grey or deep slate-blue, all wings possessing a rosy pink tint which quickly loses its purple sheen in collections. The markings blurred or indistinct, t the rusty spot of the hindwings duller.

ab. suffusa Tutt. Brit. Lep. 1902. 3. p. 469.
Dark grey with sharp markings especially in the median and submarginal areas, usually with very bright russet basal spot on the hindwings.

ab. violacea Newnham. Church Stretton Macrolep. 1900. p. 129.
A violet blush over all wings.

ab. bicolor Lempke. Tijdsch. Ent. 1959. 102. p. 77.
Base of forewings pale grey, the rest unicolorous dark grey with the pale spot on the transverse nervure, a rufous spot at base of hindwings which are unicolorous dark grey with the transverse lines obsolete.

ab. philiponi Huard. Misc. Ent. 1928. 31. p. 25.
Yellowish white, the hindwings slightly paler than the forewings especially in the disco-costal area. All markings are absent except for a light sinuous shade running from costa to inner margin and the rust-coloured spot is duller than in typical specimens. Underside of all wings entirely yellowish-white, withour marking.
This must be very similar to pallida Tutt and possibly subflava Gillmer which is described as being the "colour of a freshly broken tile" (which may, or may not, be pale yellow.) It is separated only by its colour, yellowish-white, from the other similarly weakly-marked forms.

ab. salicis Holle. Schmett. Deutschl. 1865. p. 95.
= palustris Holle. Schmett. Deutschl. 1865. p. 95.
Holle gives the name "salicis" to populi larvae which were feeding on Willow but says that if foodplant names are not acceptible, the name "palustris" may be used. The description of the moth which was bred from the willow-feeding larvae is given as --"Only shadowy indications of the bands showing and the red of the hindwing fails completely."
This appears to be the only form in which the rust-coloured spot of the hindwings is completely absent, (except the albino ab. albida Cockayne) the ab. tremulae Borkh. is transitional. Cockayne's albida has antennae, feet and all parts cream-coloured.

ab. flavomaculata Mezger. Lambillionea 1928. 28. p. 59.
The spot of the hindwings yellow-brown, not rust-coloured.

ab. basilutescens Cockayne. Ent. Rec. 1953. 65. p. 34.
The patch at the base of the hindwing whitish-ochreous instead of rust-coloured.

ab. albida Cockayne. Ent. Rec. 1953. 65. p. 33. pl. 3. f. 2.
All parts, including the head, antennae, thorax, legs and abdomen, cream-coloured. The wings are devoid of markings, but the nervures are visible, being very slightly darker.

ab. moesta Cockayne. Ent. Rec. 1953. 65. p. 34. pl. 3. f. 3.
Ground colour of the forewing dark grey-brown with the markings just visible, the thorax and abdomen also dark grey-brown. The nervures are pale.
The hindwings of the type are also darkened, with the pale nervures conspicuous. Cockayne omitted to describe the hindwings.

ab. schongarthi Closs. Int. Ent. Z. 1913. 6. p. 346.
Wings dark ash-grey, the forewings without dark central band but showing five sharp dentate blackish transverse lines.

ab. fasciata Spuler. Schmett. Eur. 1903. 1. p. 90.
Specimens with broad, black-brown, central band on the forewings.
Gillmer has separated this form into various ground colours. See p. 1 of these notes.

ab. angustata Closs. Int. Ent. Z. 1916. 10. p. 64.
The central band of the forewings narrow.

ab. decorata Schultz. Berl. Ent. Z. 1902. 47. p. 288.
Forewings light ash-grey with dark grey middle field, the transverse lines weak. In the middle field of both forewings along the inner margin and extending as far as vein 3, there is rust red colouring similar to that of the hindwing basal patch.

ab. depupillatus Silbernagel. Acta Soc. Ent. Bohem. 1943. 40. p. 5.
Forewing with no white discoidal spot or pupil.
I have not seen the original description.

ab. rectilineata Klemensiewicz. Spraw. Kom. Fizyogr. Krakow. 1912. 46. p. 4.

p.1. Hemaris Dalman.

tityus Linnaeus. Syst. Nat. 1758. Ed. 10. p. 493.
=bombyliformis Esper. Eur. Schmett. 1779. 2. p. 180. pl. 23. f. 2.
= musca Retzius. Gen. et Spec. Ins. 1783. p. 33.
= bombyciformis Leach. Edin. Encyc. 1815. p. 131.
= fuciformis Oken. Lehrb. Naturg. 1815. 3. (1). p. 749.
= scabiosae Zeller. Stett. Ent. Z. 1869. 30. p. 387.
= knautiae Zeller. Stett. Ent. Z. 1869. 30. p. 387.

aberrational forms etc.

tityus Linn. typical form -- Linnaeus merely says that the abdomen bears a black tuft and is ringed with black. The wing margins black.

ab. ferrugineus Stephan. Iris. 1924. 38. p. 18.
In three flown (not bred) specimens the hyaline parts of the wings are suffused with rusty-yellow.
Bred specimens on emerging from the pupa are quite heavily scaled with reddish-brown, these scales being shed on their first flight to leave the wings clear. Stephan stresses this but names the aberration because the three in his collection had flown but still remained rusty-yellow.

ab. flavescens Cockayne. Ent. Rec. 1953. 65. p. 81.
On fore and hindwings the parts normally dark are orange-brown. The hair on the first two abdominal somites is browner than usual and the hairs on the middle somites are brown instead of black.

ab. reducta Closs. Int. Ent. Z. 1917. 11. p. 82.
On the abdomen the broad black band is reduced to a narrow one.

p.1. Hemaris Dalman.

fuciformis Linnaeus. Syst. Nat. 1758. Ed. 10. p. 493.
= variegata Allioni. Mel. Acad. Sci. Turin. 1766. 3. p. 193.
= bombyliformis Illiger. Denis & Schiff. Wien Verz. 1800. Ed. 2. p. 22
= lonicerae Zeller. Stett. Ent. Z. 1869. 30. p. 387.
= caprifolii Zeller. Stett. Ent. Z. 1869. 30. p. 387.

aberrational forms etc.

fuciformis Linn. typical form -- Linnaeus merely says the abdomen tufts are black, the fascia yellowish. The wings are hyaline with black margins.

ab. heynei Bartel. Ent. Nachr. 1898. 24. p. 337.
The borders of the wings darker than normal, more blackish, thus similar to tityus, the discoidal mark or bar is also broader. The abdomen resembles tityus more than fuciformis, the third and fourth segments being quite black, not red-brown.

ab. milesiformis Treitschke. Schmett. Eur. 1834. 10. (1). p. 125.
There seems little, apart from small build, to separate this form from typical fuciformis. Bartel however saw Treitschke's types says that the outer margin of the wings is light red-brown scaled and sends out towards the base small teeth into the single cells. The discoidal bar on the forewings is not so broad.

ab. circularis Stephan. Iris. 1924. 38. p. 18.
Specimens of ab. heynei with the broad black band on the abdomen divided by two white-grey, silvery and glossy semi-circles.

ab. musculus Wagner. Int. Ent. Z. 1919. 13. p. 157.
All the usually olive-green parts, head, thorax, abdomen and wing-base, are reddish-grey coloured.

ab. rebeli Anger. Zts Ost. Ent. Ver. 1919. 4. p. 5.
The most striking character is the increase of the red brown dusting and therefore distinctly strong limiting of the hyaline parts of both wings. On the forewing the towards the base strongly broadened spot on the transverse vein almost completely covers the middle cell. Hindwing with the olive-green basal field enclosed on its outer edge by a broad pale red-brown transverse band the outer side of which is not sharply defined so that in conjunction with the broad dark margin of the wing the hyaline area appears particularly reduced. The margins of all wings are broader than normal and the brown dusting of the veins is stronger.

ab. obsoleta Lambillion. Rev. Mens. Soc. Ent. Nam. 1920. 20. p. 35.
The discoidal mark or bar is more or less obliterated or completely absent.

ab. minor Lambillion. Rev. Mens. Soc. Ent. Nam. 1920. 20. p. 35.
Specimens only 38mm. or less in expanse and thus very small.

p.1. Macroglossum Scopoli.

stellatarum Linnaeus. Syst.Nat.1758.Ed.10.p.493.
= flavida Retzius. Gen.et Spec.Ins.1783.p.33.
= nigra Cosmoci. Le Nat.1892.14.p.280.

aberrational forms etc.

stellatarum Linn. typical form -- the description merely says the body towards the end is black and white varied,the hindwings ferruginous.

ab.subnubila Schultz. Ent.Z.1904.17.p.74.
The forewing normal,the hindwing completely darkened over. Instead of the rust colour of the typical form,the ground is blackish-brown.The body is darker,grey, without the whitish marking normally present. Specimens which show less darkening of these whitish patches also belong here.

ab.fasciata Rebel. Berge's Schmett.1910.p.99.
Forewings with a broad black central band.

ab.convergens Constantini. Atti,Soc.Nat.Modena.1916.3.p.15.
On forewings the median lines converge and partially merge.
I have not seen the original.

ab.approximata Lempke. Tijdschr,Ent.1959.102.p.80.
The two transverse lines on the forewings which both reach the inner margin,are close together but do not touch.

ab.clausa Lempke. Tijdschr.Ent.1959.102.p.80.
The two transverse lines of the forewing touch each other at the inner margin to form a triangle.

p.1. Deilephila Laspeyres.

elpenor Linnaeus. Syst. Nat. 1758. Ed. 10. p. 491.
= porcus Retzius. Gen. et Spec. Ins. 1783. p. 34.
= vitis Oken. Lehrb. Zool. 1815. 3. (1). p. 760.

aberrational forms etc.

elpenor Linn. typical form -- forewing green and purple varied. Hindwing with black base.

ab. pallida Tutt. Brit. Lep. 1904. 4. p. 64.
On the forewing the bright ochreous-green is duller, also the red shades and areas, which become dull purplish or violet and much restricted in the middle and basal areas. The hindwing has the outer margin paler in colour.

ab. clara Tutt. Brit. Lep. 1904. 4. p. 64.
The red markings of the forewings and hindwings brilliantly rosy-red, extending into a large patch towards the base of the forewings, and developed as an unusually broad outer marginal area on the hindwings.

ab. unicolor Tutt. Brit. Lep. 1904. 4. p. 64.
Forewings with no red markings in the centre of the wings, except as a shade on the inner edge of the second oblique line and rarely, extreme forms have no red at all the forewings being uniformly ochreous-green.

ab. virgata Tutt. Brit. Lep. 1904. 4. p. 64.
Hindwing with the outer margin shaded with a tint approaching the ground colour of the forewing to such an extent as to restrict the pinkish area to a transverse band just outside the middle of the wing.

ab. obsoleta Tutt. Brit. Lep. 1904. 4. p. 64.
The white discal spot on the forewing is absent.

ab. cinerescens Newnham. Lep. Church Stretton. 1900. p. 130.
Forewings clouded with grey so as to absorb, in part, the other colours.
The hindwings presumably are normal since they are not mentioned.

ab. scheiderbaueri Gschwandner. Zts. Ost. Ent. Ver. 1924. 9. p. 87.
Hindwings with a green band, 2-3mm. wide, on the outer edge of the somewhat narrowed black basal area and running from costa to inner margin. Transitionals occur in which the green band does not reach the hind margin.

ab. alboradiata Lambillion. Rev. Mens Soc. Ent. Nam. 1913. 13. p. 8.
On the hindwings the spaces between the nervures are rayed with white, about I mm. in width, beginning at the black basal area and ending at the marginal border, not touching the fringe.

ab.lugens Niepelt. Int.Ent.Z.1926.20.p.61.
Forewings olive chocolate-brown,the costa pink as in typical elpenor. The pink markings more or less lost or completely absent. Hindwings olive-grey,black at base with a hardly visible pink tint across the middle.Fringes of forewing pink, of hindwing,white.

ab.vautrini Austaut. Ent.Z.1907.21.p.119.
Forewings unicolorous chocolate-brown,somewhat reddish,except the basal area which still shows a light greenish tone. The typical markings show through weakly in a darker tone,the parts normally red,appear bluish-brown. The hindwings are darker red than usual with a well-visible trace of a blackish submarginal band, which runs from costa,without reaching the anal angle. On the body the red streaks of the thorax are present,less visible than normal but the red line running from base to tip of the abdomen fails completely,replaced by a dusting of blackish scales which form spots on segments 2 and 3.

ab.hades Rebel. Berge's Schmett.1910.p.98.fig'd Esper Eur.Schmett.2.pl.27.f.3.
Rebel names the specimen in Esper's Eur.Schmett with the description "Ground colour of all wings smoke-brown with black markings.Only the hinder part of the thorax red,the abdomen yellowish with a red tip."

ab.daubi Niepelt. Int.Ent.Z.1908.2,p.209 (fig. Iris 24.pl.5.)
Niepelt gives a too lengthy description of the bands,lines,shades etc. Standfuss later figures the specimens excellently in colour which show that the form is strongly melanic with no trace of pink markings on either wings or body.The description of the Standfuss figures therefore is given here.
The general colour of the forewings is olive-brown and the normally pink parts silvery-grey,the fringes brown. Hindwings grey-black,the upper half black,the outer margin somewhat dark,fringes white. The body olive-brown,the dorsal central line black or dark brown,the sides of the abdomen blackish.

ab.philipsi Niepelt. Jahresb.Ver.Ins.Breslau. .13.p.41.

p.1. Deilephila Laspeyres.

porcellus Linnaeus. Syst. Nat. 1758. Ed. 10. p. 492.

aberrational forms etc.

porcellus Linn. typical form -- Wings yellow and purple varied, hindwings with fuscous base.

ab. clara Tutt. Brit. Lep. 1904. 4. p. 92.
Forewings with the ground colour olive-ochreous, the three transverse lines ill-defined, the red parts bright crimson. Hindwings with the three areas equally clearly separated.

ab. scotica Tutt. Brit. Lep. 1904. 4. p. 92.
Forewings ground colour olive-ochreous, transverse lines well-marked, the red parts bright crimson. On the hindwings the central and red parts are somewhat dark-shaded.
This is an aberration, not a race as Tutt suggests.

ab. hibernica Tutt. Brit. Lep. 1904. 4. p. 92.
The ground colour markedly yellower. The first, second and fourth lines developed but the third nearly obsolete, the normal red patches on the costa and outer-margin often more or less obsoletely marked with pinky-grey, giving the wings a unicolorous appearance, the discpidal lunule fairly distinct, the hindwings also more uniform, the basal area not very dark and the outer-margin only faintly red.
This is an aberration, not a subspecies as Tutt suggests.

ab. indistincta Tutt. Brit. Lep. 1904. 4. p. 93.
Forewings ground colour olive-ochreous, tranverse lines well marked, red parts ill-developed, rosy-grey in tint. Hindwings with the outer area suffused and with only slight traces of reddish.

ab. suffusa Tutt. Brit. Lep. 1904. 4. p. 93.
The hindwings much suffused with blackish.

ab. lutescens Cockerell. Entom. 1887. 20. p. 152. (described Entom. 11. p. 169. pl. 2. f. 3.)
The red pigment in several species of moths has a tendency to become altered to yellow. This change may be expressed by the name lutescens. Cockerell then refers to Entom. 11. pl. 2. fig. 3 for a yellow form of porcellus described by its captor as "A very pale aberration in which all the rosy-crimson of the species is replaced by yellow, and the coloration much subdued."

ab. decolor Cockayne. Ent. Rec. 1953. 65. p. 81. pl. 11. f. 2.
On the forewing the costa and fringe are deep pink, the other parts which are usually deep pink, are whitish with a slight pink tint, the parts usually greenish-yellow are very pale, whitish, with a faint tint of greenish-yellow; the base and median area are greyish. Hindwing with the base and costal area dark as in the normal form, the median area whitish with a yellowish tint and the border greyish-white with a faint pink tint. The fringes deep pink, thorax and abdomen normal.

ab. galbana Gillmer. Int. Ent. Z. 1909. 3. p. 30.
Differs from typical specimens by the extended green-yellow ground colour of the forewings, by the absence of the broad rose-red transverse band before the middle of the forewing, by the complete absence of the three rose-red costal spots, and by the complete absence of the four dark brown transverse lines. On the hindwing by the black marginal area, which is only interrupted by fine greenish-dusted veins. Forewing, except the dark purple marginal area, is yellow-green; the discal spot small and brick-reddish. Hindwing black, traversed by a yellow-green band before the margin which is almost black, somewhat dusted with yellow-green. Thorax and abdomen rose-red.

ab. wesloeensis Knoch. Int. Ent. Z. 1929. 23. p. 182.
The rose-red of all wings is wonderfully lustrous and rich but the main character is that the normally narrow red stripe on the costa of the forewing runs down as a broad red band, obliquely across the wing.
This presumably means the red patch on the costa before the middle of the wing continues downwards to the inner margin, instead of being obliterated in its lower part, above the inner-margin, by olive-ochreous.

ab. flavocincta Wize. Motyle Okolic Jezewa 1917. p. 7.
On the abdomen the rings 5 and 6 are yellow.
I have not seen the original description.

ab. cingulata Bang-Haas. Ent. Z. 1934. 48. p. 48.
On the abdomen the third ring is almost completely yellowish and the sixth and seventh rings have on the right and left sides two little spots of similar colour.

p.1.

Harpyia Ochs.

bicuspis Borkhausen. Schmett.Eur.1790.3.p.380.

aberrational forms etc.

bicuspis Bkh. typical form --- Forewings snowy-white,base and margins with black spots,a sinuous black fascia. Thorax black,abdomen with white hairs.

ab.simplex Horhammer. Int.Ent.Z.1934.28.p.88.Horhammer pl.fig.10.
On the forewing only the black transverse band marking is present,leaving the basal and central areas completely markingless.
The figure shows the thin black lines,normally seen between these inner and outer bands,completely absent.

ab.insignis Cockayne. Ent.Rec.1944.56.p.53. (fig.Barrett.pl.101.f.1.)
On the forewings the dark median band is absent but the thin black ante and post-median lines,which demarcate the median area,are present. The subapical blotch is very pale grey.
The specimen figured in Barrett is very similar but not the same one.

ab.flavosignata Lempke. Tijdschr.Ent.1959.102.p.87.
On the forewings the two lines bordering the central band and the dentated line running from the apical spot to the inner margin,are bordered by a striking orange-yellow line.

ab.cinereofasciata Lempke. Tijdschr.Ent.1959.102.p.87.pl.3.f.2.
On the forewings the central band and subapical spot are strongly mixed with pale scales and therefore much paler than Borkhausen's type which had a black central band mixed with a few grey scales.

ab.divisa Lempke. Tijdschr.Ent.1959.102.p.88.pl.3.f.4 .
On the forewings the dark central band is divided into two parts,separated by a narrow line of ground colour.

ab.biloba Horhammer. Int.Ent.Z.1934.28.p.88. Horhammer plate fig.9.
Forewings with the normal median black band completely separated into two marginal spots.
The figure shows an upper costal patch or spot and a lower one on the inner margin, therefore much more extreme than the preceding divisa Lempke.

ab.nigricollis Lempke. Tijdschr.Ent.1959.102.p.87.
The collar,normally whitish in colour,is dark.

ab.postmarginata Lempke. Tijdschr.Ent.1959.102.p.87.
The upper side of the hindwings with a broad dark outer border.

ab. reducta Lempke. Beaufortia (Amst.) 1964. 11. p. 143.
Forewings with the upper half of the central dark band absent.

p.1. Harpyia Ochs.

bifida Brahm. Fuessl. Neu. Mag. 1787. 3. pt. 2. p. 161.
== hermelina Goeze. (prim. homonym). Beitr. 1781. 3. (3). p. 227.
= furcula Esper. Eur. Schmett. 1784. 3. p. 102. pl. 19. f. 6-7.
= fuscinula Stephens. Ill. Haust. 1828. 2. p. 18. pl. 15. f. 1.

aberrational forms etc.

bifida Brahm. typical form --- Larger than furcula. Forewings strong ly dusted, through which the colour remains much paler than in furcula.

ab. integra Stephens Ill. Haust. 1828. 2. p. 16. pl. 15. f. 3.
Forewings white with a broad median fascia and a deep abbreviated costal one, only traces of the normal greyish lines between these two fasciae remaining.
Hardly worthy of separation since there is a large degree of variation in the strength of these lines.

ab. latifascia Curtis. Brit. Ent. 1827. 4. pl. 193.
Forewings with the median fascia broad. Hindwings with teo obsolete fuscous bands, the inner one being narrowest.
I have not seen the original description.

ab. angustefasciata Lempke. Tijdschr. Ent. 1959. 102. p. 90. pl. 3. f. 12.
Forewings with the central band conspicuously narrowed.

ab. simplex Lempke. Tijdschr. Ent. 1959. 102. p. 90. pl. 3. f. 13.
The markings of the forewings restricted to the central band, the discal and subapical spots and a dentated line running from the latter spot to the inner margin.
The figure shows this dentated line very heavy, it is therefore different from integra Stephens (above) in which this line is extremely faint. These variations of the fine lines are hardly worthy of names.

ab. obscurefasciata Klemensiewicz. Spraw. Kom. Fiz. Krakow. 1912. 46. p. 5.
The central band of the forewings and the subapical spot are not grey, but blackish.
I have not seen the original description.

ab. nigrofasciata Schwingenschuss. Zts. Wien Ent. Ges. 1953. 38. p. 143.
Forewings with a broad black middle band and the hindwings bordered with a 3 mm. wide black-grey band.

ab. aurata Newnham. Ent. Rec. 1895. 6. p. 15.
= aurea Newnham. Lep. Church Stretton. 1900. p. 138.
Ground colour white as in bicuspis, the central band also broken as in that species and instead of being grey, is of a bright golden yellow, as is also the apical spot.
Newnham's second description of the same moth says that the median band is strongly tinged with orange.

ab.fuscomarginata Cockayne. Ent.Rec.1951.63.p.31.pl.2.f.9.
Forewings with the median band blackish and the subapical mark is darker than usual. The marginal area is uniformly grey with the nervures darker. Internal to the subapical line and the festooned line which runs from it to the inner margin, is a white stripe and the area between this and the blavkish band is devoid of markings,except for the dark discoidal spot.

ab.laticincta Cockayne. Ent.Rec.1942.54.p.33.pl.2.f.7.
The median band of the forewings is extended outwards to the discoidal spot.

ab.intervalla Koshantschikov. Jahrb.Mus.Martjanow.1930.7.p.71.
The median band is separated into two spots,one on the costa ,the other on the inner margin.
I have not seen the original description.

ab.costimacula Cockayne. Ent.Rec.1942.54.p.33,pl.2.f.5.
The median band is reduced to a single mark on the costa reaching the median nervure,and a few black scales beyond it. This costal mark is outlined by a complete narrow orange stripe. This form is a further development of the preceding intervalla Kosh.

ab.renigera Bubacek. Zts.Ost.Ent.Ver.1924.9.p.113.fig.
On the forewings the outer lines form a closed-in kidney-shaped oval which encloses a patch of ground colour,instead of being open down to the inner margin. This oval patch gives the impression of a large reniform stigma.
The figure shows the outer line of the median band,instead of continuing down to the inner-margin,connected half way down the wing with the sinuous submarginal line,to form a completely enclosed oval patch of ground colour. The subapical line also ceases at the juncture instead of continuing to the inner margin.

ab.mucronata Meigen. Eur.Schmett.1830.2.p.167.pl.73.f.6.
Forewings white-grey,the base white,with three black transverse lines edged with red-yellow. The two outer ones curve together and unite at the costa in a black patch. The first or basal line is straight,the second one curved and indistinct towards the inner margin,the third curved and ending half way down the wing. The area left between these two outer lines is white.
The description is not good but if the figure is to be relied on the form is similar in some respects to the preceding renigera. The figure shows the wings grey,except for an oval-shaped enclosure in the centre which is white and formed by the two outer transverse lines connecting both at the inner margin and costa instead of being open at both ends. In renigera Bubacek the oval is open at the costa,in the present form it is not being shut in by the black patch.

ab.suffusa Lempke. Tijdschr.Ent.1959.102.p.90. (nom.preoc.Rangnow 1935) pl.3.f.11.
Only the base of the forewings is whitish,the remainder of the same greyish tint as the central band; the two transverse lines bordering this band and the discal spot are clearly visible and the submarginal usually visible through a white stripe on its inner side.

ab.atolla Hoffmeyer. Flora og Fauna.1958.64.p.17.fig.

ab.optileta Bloch. Flora og Faun.1959.65.p.36.fig.

The following forms belong to Northern races,predominantly dark so are not included here. --

saltensis Schoyen.
poecila Stichel.
suffusa Rangnow.
ajatar Schilde.

Harpyia Ochs.

p.1.

furcula Clerck. Icones 1759.pl.9.f.9.
= fuscinula Hubner. Samml.Eur.Schmett.1800.Bombyc.p.37.
= salicis Lamarck. Anim.s.Vert.1816.3.p.582.
= forficula Fisher de Waldheim. Ent.Ross.1820.pl.3.f.4.(on Sallow)
= bicuspis Boisduval. Icon.1834.2.pl.70.f.1.
= arcuata Stephens. Ill.Haust.1828.2.p.17.

furcula Clerck. typical form --- the bad figure shows the wings rather dark grey with yellow-edged black transverse lines and marginal black spots.

ab.impuncta Lempke. Tijdschr.Ent.1959.102.p.89.
On the upperside of the forewings the black discal spot is absent.

ab.simplex Lempke. Tijdschr.Ent.1959.102.p.89.pl.3.f.6.
The markings of the forewings restricted to the central band,the discal and subapical spots and the dentated line running from the latter spot to the inner margin.

ab.angustifasciata Lempke. Tijdschr.Ent.1959.102.p.89.
The central band of the forewings conspicuously narrowed.

ab.obliterata Smith. Ent.Rec.1954.66.p.97.pl.3.f.10.
The normally broad purplish-grey central band edged on both sides with black,is absent. The usual markings along the costa are indistinct,on the inner margin there are two black spots.
The type is in the R.C.K.coll.at Tring.

ab.aureonigra Kennard. Ent.Rec.1956.68.p.53.
The markings of the forewings jet black,giving the insect a striking appearance. The central band is dusted with orange scales and on the hindwings the band is pronounced. Head and thorax black with intermittent orange scaling.

ab.obsoleta Haanschus. Norsk.Ent.Tidskr.1928.2.p.251.

ab.pallescens Rocci. Atti.Soc.Ligust.1914.24.p.136.

ab.aurata Lempke. Beaufortia 1964.11.p.143.
Upperside of the thorax and central band and apical blotch of the forewings beautifully marked with orange.

p.1. Cerura Schrank.

vinula Linnaeus. Syst. Nat. 1758. Es. 10. p. 499.
= minax Hubner. Samml. Eur. Schmett. 1804. Bombyc. pl. 56. f. 243. (♂)

vinula Linn. typical form -- wings white, with black spots and fuscous veins and stripes. minax Hubner is placed as a synonym, as being little different from normal males. Both Seitz and Lempke state that it is a form without the black spots on the margin of the hindwings, this is not so, in both our copies of Hubner's work these spots are present. Hubner figures the antemedian band somewhat prominently on the forewings so if the form is to be separated at all it must be on this account. The form with this band very prominent is ab. fasciata Shultz.

ab. fasciata Schultz. Int. Ent. Z. 1909. 2. p. 287.
On the forewings the outer half of the basal field is thickly dark grey dusted, to form a broad grey band from costa to inner margin.

ab. tegelensis Strand. (nom. nov. pro fasciata Closs) Arch. Naturg. (1925) 1927. 91. A12. p. 282.
= fasciata Closs. (nom. preoc. Schultz) Int. Ent. Z. 1917. 11. p. 61.
On the forewing the sub-basal and sub-marginal markings form distinct dark bands.

ab. zickerti Frings. Ent. Z. 1904. 18. p. 58.
On the forewing the outer toothed line is sharp and distinct, the second toothed line, as also the third line and the band of spots are all completely absent, leaving the central area markingless. The dark broad transverse band in the basal area appears considerably weakened.

ab. simplex Niepelt. Ent. Z. 1930. 44. p. 19. Niepelt plate f. 4.
The forewings almost markingless except for a narrow dark sub-basal band. Hindwings without marginal spots.

ab. striata Schultz. Int. Ent. Z. 1909. 2. p. 287.
On the forewings the rows of spots in the basal area are united to form longitudinal streaks.

ab. pigra Wnukowsky. Fol. Zool. Hydrobiol. 1935. 7. p. 225.
Typical in markings but smaller. (50 mm.)

ab. hyalina Krulikowsky. Mater. Pozn. Faun. Flor. Ross. Imp. 1909. 9. p. 92.

p. 1. Stauropus Germar.

fagi Linnaeus. Syst. Nat. Ed. 10. 1758. p. 508.

aberrational forms etc.

fagi Linn. typical form -- wings reddish-grey with yellowish transverse lines.

ab. obscura Tutt. Ent. Rec. 1897. 9. p. 208.
= obscura Rebel. (nom. preoc. Tutt.) Berge's Schmett. 1910. p. 102.
The deep brownish-black melanic form.
Rebel's obscura had strongly darkened, sharply marked forewings.

ab. nigrescens Lempke. Tijdschr. Ent. 1959. 102. p. 94. . pl. 4. f. 2.
The ground colour of the wings black-grey, the forewings with sharply contrasting markings which are white.
Lempke says this is not to be identified with obscura Tutt which is described as deep brownish-black. Tutt's specimens were probably not fresh and therefore somewhat brownish so it is possible the two forms are the same.

ab. illustris Dannehl. Mitt. Munch. Ent. Ges. 1929. 19. p. 103.
Forewings strongly paled, with rich yellow dusting, the central area less darkly indicated. The markings are distinct, the ante-marginal row of black spots particularly strong. Hindwings in the upper part of the basal area white-yellow, as is also the pale dentate line which starts before the middle of the costa, the ground colour is more towards yellowish than grey. Particularly striking is a line of white-yellow arcs before the margin.

ab. virgata Tutt. Ent. Rec. 1897. 9. p. 208.
Showing a strong tendency to form a dark band across the forewings.

ab. cuneifera Groth. Flora og Faun. 1942. 48. p.

ab. flavofasciata Hoffmeyer. Flora og Faun. 1960. 66. p. 13. fig.
The most striking character is a light band, which is yellowish, on the outside of the broad dark one.

ab. concolor Lempke. Beaufortia (Amst.) 1964. 11. p. 143.
Body, fore and hindwings, unicoloured dark greyish, of the same shade as the dark part of normally coloured specimens. The light markings almost completely obliterated.

p.1. Drymonia Hubner.

dodonaea Schiffermuller. Wien Verz.1775.p.49

aberrational forms etc.

dodonaea Schiff. typical form - wings rather dark grey with whitish median band.

ab.trimacula Esper. Eur.Schmett.1785.3.p.242.pl.46.figs.1 & 2.
Forewings with brownish ashy-grey ground colour on which are three curved stripes the areas between them white.
This is generally accepted as the form in which the white spreads out to the margins instead of being confined to a median band.

ab.intermedia Schawerda. Verh.zool-bot.Ges.Wien.1916.66.p.237.
Forewings with the base and outer margin pale grey,the central band dark and the area between it and the marginal grey band is white.In trimacula Esp.this white area is continued through to the margin. Described from a single ♂.
From the description this must be a rare form,I have not seen a specimen with the white area finishing in a pale grey marginal band.

ab.albida Rebel. Berge's Schmett.1910.p.104. (see Barrett pl.109 f.1b.not 103.)
Forewing with the entire central area unicolorous white,only the two transverse lines bordering it are dark brown.
The figure in Barrett,which Rebel mentions,shows the usual dark median band absent leaving a very wide white area between the ante and postmedian lines.

ab.nigrescens Lempke. Tijdschr.Ent.1959.102.p.98.pl.7.f.2-3.
The outer half of the central area is not white as in typical examples,but dark grey,almost as dark as the inner half.Only the postdiscal lines which follows the outer half remains white.

ab.purpurascens Cockayne. Ent.Rec.1951.63.p.31.pl.2.f.10.
Forewing ground colour purplish-black.The line starting near the base,running near the costa,then crossing down to the inner margin,is of a somewhat paler colour,the line bordering the postmedian is dusky instead of pure white but distinct,the subterminal line is only slightly paler than the ground colour.
Hindwings purplish-brown and much darker than normal.Head,thorax and legs purplish-black,abdomen purplish-brown.

ab.fusca Rebel. Berge's Schmett.1910.p.104.
The entire forewings are darkened uniformly to smoke-brown and markingless.

p.1. Drymonia Hubner. (Chaonia Stephens in "South".)

ruficornis Hufnagel. Berl.Mag.1766.2.p.424.
= chaonia Hubner. Samml.Eur.Schmett.1800-03.Bombyc.pl.3.f.10-11.

aberrational forms etc.

ruficornis Hufn. typical form --- forewings grey with whitish transverse bands, very narrow,and the outer one whiter than the inner,which is clouded with grey.

ab.grisea Turati. Nat.Sic.1908.20.p.22.pl.6.f.2-3.
Forewing with the normally white parts darkened to grey. The markings are still visible.

ab.lunula Grunberg. Seitz Macrolep.1912.2.p.297.pl.45.f.row e.
On the forewing the whitish colour is restricted to the outer half of the median area beyond the cell and usually interrupted in the centre into a costal and inner-marginal patch.
It is difficult to know why Grunberg says "usually" because it is the only character of note. The figure shows this interruption most clearly.

ab.albisignata Lenz. Osthelder Schmett.Sudbayern.1927.p.189.pl.9.f.16-17.
Forewing with the area before the outer toothed line much paled to white.
The figure shows the outer half of the median area pure white.

ab.albifasciata Warnecke. Zts.Wien Ent.Ges.1943.28.p.16.
Forewings with the central area white and markingless except for the middle moon and the narrow dark bordering line on either side.
A rare form in which the whole area between the ante and postmedian lines is white,the usual dark median band on the inner half of the area being completely absent.

ab.argentea Closs. Int.Ent.Z.1916.10.p.63.
Very pale white-grey and weakly marked.

ab.albescens Lempke. Tijdschr.Ent.1959.102.p.100.
The outer half of the central area,or the whole central area,white,the rest of the forewings greyish-white and therefore a little darker.The transverse lines and central shade,if present,distinct.
Lempke says this form is not the same as the preceding argentea since the markings are very distinct,in argentea they are weak or feeble.

ab.illunata Dannehl. Mitt.Munch.Ent.Ges.1929.19.p.104.
Specimens with the outer half of the median area white or whitish but with the cell spot absent.

ab.delineata Lempke. Tijdschr.Ent.1959.102.p.100.pl.8.f.9.
Basal and outer area of the forewings grey-black with no submarginal line.The central area whitish with dark discal lunule,the two double dentated lines which border it are absent.

ab. bicolor Lempke. Tijdschr. Ent. 1959. 102. p. 99. pl. 8. f. 6.
The basal area of the forewings, up to the middle of the central area, brownish, the outer half of the wings whitish, the nervures in the marginal area dark, the transverse lines distinct.

ab. approximata Lempke. Tijdschr. Ent. 1959. 102. p. 100.
On the forewing the outer transverse line is moved inwards so that it touches the discal lunule and therefore the central area is strongly narrowed.

ab. nigrescens Lempke. Beaufortia (Amst.) 1964. 11. p. 144.
Forewings unicoloured blackish, transverse lines and discal stripe visible.

p.1. Pheosia Hubner.

tremula Clerck. Icones 1759.pl.9.f.13.
= dictaea Esper. Eur. Schmett. 1786.3.p.290.pl.58.f.5.

aberrational forms etc.

tremula Clerck typical form -- the figure is bad but shows the forewings creamy-buff with darkened costa and inner margin.

ab. obscura Vorbrodt. Schmett. Schweiz. 1911.1.p.195.
With noticeably black-brown marking and similar thorax and abdomen. The underside of all wings smoky-black.

ab. nigrescens Lempke. Tijdschr. Ent. 1959.102.p.101.
Ground colour of the forewings and hindwings black-grey, the markings still contrasting, the narrow white ends of the nervures near the anal hook of the forewings still visible as grey lines.

p.1. Pheosia Hubner.

gnoma Fabricius. Spec. Ins. 1781. 2. p. 190.
= dictaeoides Esper. Eur. Schmett. 1789. 3 cont. p. 27. pl. 84. f. 3.

aberrational forms etc.

gnoma Fabr. typical form -- greyish-white with black marginal band containing a white spot.

ab. rufescens Lempke. Tijdschr. Ent. 1959. 102. p. 101.
Ground colour of the forewings and fringes not whitish-grey but pale reddish-brown.

ab. desagittalis van Wisselingh. Ent. Ber. (Amst.) 1955. 15. p. 389.
The characteristic white wedge-shaped mark near the inner angle of the forewing is not more than a small white point.

ziczac Linnaeus. Syst. Nat. Ed. 10. 1758. p. 504.

aberrational forms etc.

ziczac Linn. typical form -- the original description merely says that the apex has a grey subocellated spot. The common form has a whitish-grey discal area with yellowish basal and inner-marginal area, a short stripe from the costa as an antemedian line, a prominent lunar-shaped discoidal mark and large ocellus-like formation beyond, grey and brown mixed with a distinct short stripe parallel with the costa at the apex.

ab. nigrapicata Lempke. Tijdschr. Ent. 1959. 102. p. 103. pl. 9. f. 6.
The space between the discoidal spot and the submarginal line on the forewings is completely or nearly completely black, the hindwings slightly darkened.
The figure does not show very much blackbut it would appear to travel from the discoidal diagonally up to the apex.

ab. obscura Lempke. Tijdschr. Ent. 1959. 102. p. 104. pl. 9. f. 8-9.
The brown ground colour of the forewings darkened but all markings distinctly visible; hindwings grey-black.
Lempke says this is the darkest form from Holland that he has seen.

ab. nigra Lingonblad. Notul. Ent. .26. p. 71.

ab. designata Lempke. Tijdschr. Ent. 1959. 102. p. 103. pl. 9. f. 7.
Forewings of normal colour or somewhat paler; only the discal mark and two short lines near the apex are distinct, other markings are obsolete.
Lempke says this is near the following ab. tristis Masl. which however has a dark ground colour.

ab. tristis Maslowscy. Polsk. Pismo. Ent. 1923. 2. p. 133. fig. 17.
Possesses a dark mark on the plain dark brown ground colour of the forewings. All markings have almost disappeared or are quite obsolete, only the dark lunar discal spot is distinctly visible.
Similar to the preceding but with dark brown ground colour.

ab. lunata Cockayne. Ent. Rec. 1951. 63. p. 32. pl. 2. f. 12.
Forewing with the normal pale grey area bounded by the basal line, the discoidal spot and the median nervure, replaced by dark reddish-brown, somewhat darker than that of the area between the median nervure and the inner margin; the submarginal band is reddish-brown; the semi-lunar discoidal mark is surrounded by a pale line and stands out conspicuously. Hindwing dark purplish-brown with the markings indistinct; fringes more nearly unicolorous than usual.

ab.diluta Cockayne. Ent.Rec.1951.63.p.31.pl.2.f.11.
Forewing with the ground colour creamy-white and all the markings present but very faint; the discoidal mark and the two subapical marks near the costa are paler than usual but distinct. Hindwing whitish, thorax and abdomen pale greyish-white.

ab.pallescens Rangnow. Ent.Rundsch.1935.52.p.190.pl.2.f.20a.
This is the same form as the preceding and would have priority but since it was described under the subspecies dimorpha Rangnow it is not used here, leaving diluta Cockayne for the nominotypical race.
The description says merely "bleached, pale coloured.", the figure shows an insect identical with Cockayne's diluta.

hybrid newmani Tutt. Brit.Lep.1906.5.p.21.
♂ ziczac + ♀ dromedarius. Showing a combination of the markings of both species, the apical mark of ziczac being exhibited.

p.1. Notodonta Ochsenheimer.

dromedarius Linnaeus. Syst. Nat. Ed. 12. 1767. p. 8-7.

aberrational forms etc.

dromedarius Linn. typical form --- forewings fuscescent with yellowish basal patch and two pale transverse lines.

ab. perfuscus Haworth. Lep. Brit. 1803. p. 100.
= hibernica Caradja. Iris 1895. 8. p. 97.
Thorax blackish. Wings darker than the type, clouded fuscous, without the red-brown, Transverse lines fuscous, obsolete towards apex.
Caradja's hibernica had the wings rather dark brown and less marked.
I see no reason for separating these two forms as some authors have done.

ab. niger Cockayne. Ent. Rec. 1942. 54. p. 33.
Forewings nearly black with faint rust coloured markings in the usual situations, but with the pale transverse lines absent; thorax and abdomen nearly black. Hindwings greyish-black.

ab. dromedarulus Haworth. Lep. Brit. 1803. p. 101.
= zebu Donovan. Brit. Ins. 1807. 12. p. 1. pl. 397. f. 1.
Thorax rufous. Wings reddish with two transverse lines which are obsolescent. Donovan's zebu had the thorax rufous, the forewings pale rufous and fulvous varied, with two obsolete denticulate yellowish bands. He states that dromedarulus Haworth is a synonym but of course dromedarulus has priority.

p.1. Notodonta Ochsenheimer.

anceps Goeze. Ent. Beitr. 1781. 3. (3). p. 207. (fig. Kleemann Beitr. 1.)
= trepida Esper. Eur. Schmett. 1786. 3. p. 284. pl. 57. f. 2-3.
= tremula Hubner. Samml. Eur. Schmett. 1800-03. Bomb/c. pl. 7. f. 30.

aberrational forms etc.

anceps Goeze. typical form -- wings shaded ashy with undulate transverse lines. The figure to which Goeze refers shows the ground colour yellowish-grey with paler transverse lines.

ab. fusca Cockayne. Ent. Rec. 1951. 63. p. 32.
The pale scales on the forewing, and the hairs on the head, thoraz, legs and abdomen, are replaced by blackish ones making the aberration much darker than normal. The hindwings show black scales near the apex.

ab. nigrescens Lempke. Tijdschr. Ent. 1959. 102. p. 106. pl. 10. f. 5.
Ground colour of the body, the legs, the forewings and the costa of the hindwings blackish, much darker than in the preceding ab. fusca Cockayne. The normal markings remain distinctly visible.

ab. flavilunulata Warnecke. Zt. Wien. Ent. Ges. 1943. 28. p. 16.
Forewing with the central streak broadly surrounded by ochre-yellow

ab. transversa Wagner. Zt. Ost. Ent. Ver. 1925. 10. p. 118. fig.
Forewing with two distinct dark transverse lines.

ab. clausa Cockayne. Ent. Rec. 1951. 63. p. 32.
On the forewing the postmedian line is nearer to the base than usual, touching the discoidal spot, which is large and dark, and meeting the antemedian line at nervure 2, then separating from it slightly and meeting it again at a point between nervures 1 and 2 and at nervure 1.

ab. tangens Lempke. Tijdschr. Ent. 1959. 102. p. 106.
On the forewings the two transverse lines touch each other a little above the inner margin and then separate again.

p.1. Lophopteryx Stephens.

cucullina Schiffermuller. Wien Verz.1775.p.311.
= cuculla Esper. Eur. Schmett.1786.3.p.364.pl.71.f.1.

aberrational forms etc.

p.1. Lophopteryx Stephens.

capucina Linn. Syst. Nat. 1758. Ed. 10. p. 507.

aberrational forms etc.

capucina Linn. typical form -- ground colour red-brown.

ab. camelina Linn. Syst. Nat. 1758. Ed. 10. p. 507.
The ground colour brown.

ab. giraffina Hubner. Samml. Eur. Schmett. 1819-22. Bombyc. pl. 66. f. 277-278.
The original plate of this form in the British Museum library shows the forewings dark greyish-brown, with a tendency to become browner towards the margins, there is nothing black about them.
In various copies of Hubner this form is shown as dark-greyish black or blue-black and are mistakes on the part of the copying artist.

ab. nigra Riesen. Berl. Ent. Z. 1908. 53. p. (14).
Wings and body black-brown.

ab. infuscata Schwingenschuss. Z. Wien Ent. Ges. 1953. 38. p. 144.
Hindwings and body darkened to black-grey.
This is all the description gives, presumably the forewings are normal red or red-brown.

ab. variegata Lempke. Tijdsch. Ent. 1959. 102. p. 108. pl. 11. f. 5.
Ground colour of forewings pale brown with sharp markings and with a pale band behind the second transverse line and before the outer margin.

ab. pallida Gillmer. Arch. Ver. Freunde Naturgesch. Mecklenb. 1910. 64. p. 36.
Ground colour very light, almost the colour of P. palpina.

ab. pallida Marechal. Rev. Mens. Soc. Ent. Nam. 1911. 11. p. 45. (nom. praec. Gillmer)
Forewings of hindwings coloration with the markings almost obliterated, there are only feeble traces visible under a lens

ab. unicolora Lempke. Tijdschr. Ent. 1937. 80. p. 272.
Forewings unicolorous, without dark markings.
Presumably occurs in any shade or colour.

ab. fasciata Dannehl. Ent. Z. 1933. 46. p. 247.
Hindwings with a uniformly broad dark band on the margins which reaches to the little pale band before the anal spot.

p.1. Odontosia Hubner.

carmelita Esper. Eur. Schmett. 1790. 3 cont. p. 65. pl. 91. f. 1.
= capucina Hubner. Vogel u. Schmett. 1793. pl. 81.

aberrational forms etc.

ab. sauermanni Bang-Haas in Seitz. Seitz Macrolep. 1933. 2. Suppl. p. 182. pl. 14f.
Uniformly dark reddish of the colour usually seen only on the costa; the pale grey colour is concentrated at the anal angle from below lower median nervure.
Gaede gives Bang-Haas as the author but beyond saying that the insect was bred gives no locality. It may possibly be confined to northern races such as subsp. nocturnalis Stichel.

ab. nigrescens Lempke. Beaufortia (Amst.) 1964. 11. p. 144.
Body, fore and hindwings blackish, the pale costal spot of the forewings sharply contrasting.

p.1. Ptilophora Stephens.

plumigera Schiff. Wien Verz.1775.p.61.

aberrational forms etc.

plumigera Schiff. typical form --♂ ground colour of forewings light ochreous-brow and purplish-brown in the ♀.

ab.variegata de Villiers. Linn.Ent.1789.2.p.160.
= variegata Lenz. Osthelder Schmett.Sudbayern.
Forewings variegated fuscous and grey. Presumably ♂ sex.
Lenz variegata had the forewings pronouncedly variegated with dark brown on a pale ground.

ab.virgata Dannehl. Ent.Z.1933.46.p.247.
On the forewings the middle field between the two tranverse lines is uniformly darkened. Presumably ♂.

ab.unicolor Smith. Entom.1887.20.p.93.
♂ with the forewing uniform in tint,as in the female.

ab.interrupta Galvagni. Verh.Zool.-bot.Ges.Wien.1927.77.p.(55).
Specimens with interrupted middle band,cut through by the ground colour,thus forming an upper rectangular costal patch and a smaller inner-marginal one.

ab.pallida Hoffmann. Mitt.Naturw.Ver.Steierm.1915.51.p.280.

ab.berolinensis Strand.(nom.nov.pro pallida Closs) Arch.Naturg.(1925)1927.91.A12. p.282.
= extincta Galvagni.(nom.nov.pro pallida Closs) Verh.z.-b.Ges.Wien.1927.77.p(55)
= pallida Closs. (nom.preoc.Hoffm.) Int.Ent.Z.1917.10.p.123.
Pale,particularly weakly marked.

ab.fulva Lenz. Osthelder Schmett.Sudbayern.1925.p.195.pl.10.f.5-6.♂ and ♀.
Unicolorous pale yellowish-brown.

ab.brunnea Lenz. Osthelder Schmett.Sudbayern.1925.p.195.pl.10.f.9-10-♂ and ♀.
Unicolorous brown.

ab.obscura Schwingenschuss. Verh.zool.-bot.Ges.Wien.1910.60.p.(219).
Throughout blackish smoked. ♂.

ab. saturatior Rebel. Verh. zool.-bot. Ges. Wien. 1923. 73. p. (20). (nom. nov. obscura Closs
= plumigerella Strand. (nom. nov. pro obscura Closs) Arch. Nat. (1925) 1927. A12. p. 282.
= obscura Closs. (nom. preoc. Schwing.) Int. Ent. Z. 1917. 10. p. 123.
Strongly reddish, particularly sharply marked.

ab. nigricata Vorbrodt. Schmett. Schweiz. 1914. 2. p. 618.
Thick black dusting through which the reddish ground colour weakly shows.

ab. schaffgotschi Marschner. Dts. Ent. Z. 1918. p. 134. fig.
♂. Only the abdomen is typical in colour. Thorax, antennae, fore and hindwings are dark grey, with slight traces in yellow scales of the normal pattern.

ab. flavescens Smith. Entom. 1887. 20. p. 93. (nom. nud.)
This is not accepted as a name since Smith merely says the lightest of his series should be called flavescens. No colour is mentioned so it would depend on how pale his palest example was. The description is insufficient to be of general use.

ab. nigricans Smith. Entom. 1887. 20. p. 93. (nom. nud.)
This is not accepted as a name for general use the description being insufficient No shade or colour is mentioned, only that he calls the darkest of his series nigricans, thus it would depend upon how dark this happened to be which may be merely brownish although the name implies blackish, a very rare and not likely form.

p.1. Pterostoma Germar.

palpina Clerck. Icones 1759.pl.9.f.8.
= palpina Linnaeus. auct.
= cauda-piscina Goeze. Beitr.Schmett.1783.3.(4).p.126.
descr.& fig.Naturf.2.p.14.pl.1.f.6.

aberrational forms etc.

palpina Clerck. typical form -- the figure shows the forewings pale ochreous-brown with greyish outer margins,the hindwings grey.

ab.grisea Kitt. Verh.zool.-bot.Ges.Wien.1914.64.p.(177).
Strikingly grey toned over the entire wings and body.

ab.obscura Hoffmann. Mitt.Naturw.ver.Steiermark.1915.50.p.278.
Ground colour of the wings strongly darkened,especially that of the hindwings which are dark grey-brown with black-grey margins.
I have not seen the original description.

ab.designata Lempke. Tijdschr.Ent.1959.102.p.110.
Forewings unicolorous,without a trace of the dark transverse band.

ab.anteromarginata Lempke. Tijdschr.Ent.1959.102.p.110.
Forewings with a broad dark band along the outer margin.

ab.postmarginata Lempke. Tijdschr.Ent.1959.102.p.110.
Upperside of the hindwings with a striking dark marginal band which is sharply bordered on its inner side by a yellow line.

ab.fasciata Cockayne. Ent.Rec.1944.56.p.53.
On the forewing the postmedian line forms a dark brown fascia.Hindwing with the basal and median parts much darker than usual,but there is a pale marginal band, broad and well defined where the wing normally is darkest.

ab.brevipennis Chapman. Trans.Ent.Soc.Lond.1910.p.(lx).
Characterized by the extreme shortness and comparatively great breadth of the wings The forewing measures 15 mm.in length and 12 mm.from apex to tornus.A normal specimen measures 24 mm.in length and 10 mm.from apex to tornus.

ab.fusca Meves. Tidskr.Ent.1914.35.p.14(top.)
Ground colour of the upperside of the forewings dark red-yellow, ashy-grey towards the outer margin, the transverse lines very distinct due to the development of the paired black-brown spots situated on the veins and the fringes of the inner marginal lobe black-brown; hindwings black-brown with a paler transverse stripe and the area outside this still darker than the basal half.The forewings are similar to var.lapponica Teich., but in this the hindwings are white.(From the German translation on p.40.)

p.1. Phalera Hubner.

bucephala Linnaeus. Syst.Nat.Ed.10.1758.p.508.

aberrational forms etc.

bucephala Linn. typical form - forewings ashy grey,with yellowish apical macule.

ab.demaculata Strand. Arch.Math.Naturv.1903.25.p.8.
On the forewing the discoidal macule is completely absent.
I have not seen the original description.

ab.nigrofasciata Kiefer. Ent.Rundsch.1913.30.p.32.
On the upperside of the hindwings there is a strongly marked dentate band and the area between it and the base is dark dusted.

ab.fasciata Kaiser. Mitt.Munch.Ent.Ges.1919.9.p.15.fig.p.13.
On the upperside of the hindwings there is a particularly dark w-shaped band. This is possibly the same form as the preceding but since the author makes no mention of the base being dark-dusted it presumably is not and therefore different and much more uncommon,forms with a hindwing band usually show the base also dark.

ab.stephani Ernst. Lep.Rundsch.1927.1.p.43.
On the forewing the apical yellowish moon is greatly enlarged and flows inwards towards the base. The two rust-brown transverse stripes are almost absent.

ab.tenebrata Strand. Arch.Math.Naturv.1903.25.p.8.
Forewings darker through the absence of the silvery colour. The hindwings usually darker.
I have not seen the original description.

ab.tenebricosa Stertz. Iris 1912.26.p.26.pl.2.f.5.
Forewings unicolorous dark mercury-grey,the discoidal macule completely absent. Hindwings darker than normal,yellowish smoke-grey,darker dusted towards the base.

ab.velata Dannehl. Ent.Z.1925.39.p.104.
On the forewings in the outer margin below the yellowish moon,strong yellow spots appear.

ab.pallida Lempke. Tijdschr.Ent.1937.80.p.274.
Ground colour of the forewings much lighter than normal,the brown marking becoming yellowish. The dark thorax marking absent.

ab.magnimaculata Lempke. Tijdschr.Ent.1937.80.p.273.
Forewings with a large,yellow,brown-centred discoidal spot.

ab.olivapicata Cockayne. Ent.Rec.1942.54.p.33.
In the apical area the buff is replaced by bluish-green or olive-green,whilst the rufous part is either blackish-brown or is unchanged in colour.

ab.defecta Stauder. Zts.Wiss.Ins.1923.18.p.265.fig.vol.17.pl.3.f.26.
Dwarf form.Forewing length 16mm. All dark marking,except for a few slight traces has disappeared and the large apical moon is hardly noticeably darker than the ground which is almost without dark scale-mixture,unicolorous pale ashy-grey and with a strong gloss. The underside is unicolorous white,without the normal bands.

ab.nanula Stephan. Ent.Z.1924.37.p.44.
Small examples,22mm,or less,the normal size being 25-30 mm. The hindwings on the upperside almost unicolorous.

ab.paupercula Stephan. Ent.Z.1924.37.p.44.
Chiefly an underside form. Complete or almost complete absence,particularly on the hindwings,of the normally distinct deep brown discal band of the underside. On the upperside the large yellow moon spot shows only weak traces of the usually distinct ochre-brownish dentate oblique stripe,and the discal spot is very small.

p.1. Clostera Samouelle.

curtula Linnaeus. Syst. Nat. Ed. 10. p. 503.
= anachoreta Esper. Eur. Schmett. 1785. 3. p. 260. pl. 51. f. 3.

aberrational forms etc.

curtula Linn. typical form -- Forewings bluish-grey, with white stripe before the apical macule which is brick colour (reddish-brown).

ab. pallida Lempke. Tijdschr. Ent. 1959. 102. p. 112.
The ground colour of the forewings greyish-white. The hindwings also paler than normal.

ab. brunnescens Lempke. Tijdschr. Ent. 1937. 80. p. 275.
The ground colour brown-grey. All examples of the 2nd. gen. belong to this form but it also occurs in the spring gen.

ab. rufescens Lempke. Tijdschr. Ent. 1937. 80. p. 275.
The apical blotch entirely red, the ground colour sometimes also with a reddish tint.

ab. apicifasciata Lempke. Tijdschr. Ent. 1959. 102. p. 112.
In the dark apical blotch of the forewings, instead of the row of dark points, there is a broad dark band.

ab. webbiana Rebel. Berges Schmett. 1910. Ed. 9. p. 111. from fig. in Barrett 3. pl. 114. f. 1d
Much darker. The forewings blackish-grey, with three white transverse lines of which the outer is edged with red-brown on its outer side.

ab. unicolor Cockayne. Ent. Rec. 1951. 63. p. 34, pl. 2. f. 8.
The whole surface of both fore and hind wings is dark cream, the markings are absent, even the chocolate tip.

ab. reducta Horhammer. Int. Ent. Z. 1934. 28. p. 86. Horhammer plate fig. 4.
In the forewings the outer, or postmedian, line is completely absent so that the chocolate blotch extends as far as the strongly developed middle line which normally is very weak; a strong black discal spot is present. The antemedian line is broad and distinct as though two lines are in one, but the basal line fails completely. In the figure through a trick of light it appears to be present.
This is the description given by the author but from his figure it would appear to be just as likely that the postmedian line is the one that is present but moved inwards close to, and running parallel with, the antemedian.

hybrid proava Standfuss. Insectenborse 1899. p. 16
= prima Tutt. Brit. Lep. 1906. 5. p. 21.
♂ curtula + ♀ pigra.

For ♂ pigra + ♀ curtula see pigra.

p.1. Clostera Samouelle.

anachoreta Fabricius. Mantissa 1787.2.p.120.
= curtula Esper. (nom.preoc.Linn.)Eur. Schmett.1785.3.p.2[illegible]6.pl.[illegible].

aberrational forms etc.

p.1. Clostera Samouelle.

pigra Hufnagel. Berl. Mag. 1766. 2. (4). p. 426.
== reclusa Schiff. Wien Verz. 1775. p. 56.

aberrational forms etc.

pigra Hufn. typical form - ground colour violet-grey, with whitish transverse lines, a red-brown spot near the apex.

ab. purpurea Lempke. Tijdschr. Ent. 1937. 80. p. 276.
Forewings purplish, without the rust-red patch near the apex.

ab. brunneoapicata Lempke. Beaufortia (Amst.) 1964. 11. p. 144.
The ground colour normal; apical spot of the forewings clear brown, sharply contrasting.

ab. flavidior By.-Salz. Ent. Rec. 1936. 48. Sep. p. (3).
The ground colour pale yellowish, all markings obsolete except for traces of four spots of the submarginal row.
Described as a form of the subsp. ferruginea Stgr. from Asia Minor.

ab. alba Cockayne. Ent. Rec. 1944. 56. p. 53.
The wings, thorax and abdomen white, without markings.

ab. obscura Lempke. Beaufortia (Amst.). 1964. 11. p. 144.
Very dark. The ground colour of body, fore and hindwings dark purplish-grey, the rust-brown apical spot of the forewings strongly contrasting.

ab. obscurior Staudinger. Stett. Ent. Z. 1887. 48. p. 102.
Strikingly darker. Hindwings deeper black with hardly lighter fringes and forewings much darker than normal with only a slight tinge of grey above anal angle, whilst the brownish patch before the outer margin fails completely.
Described from a single ♂ from Turkestan.

ab. variegata Lempke. Tijdschr. Ent. 1959. 102. p. 113.
Forewings with four sharply contrasting pale lines. A beautifully variegated form.

ab. testaceomaculata Rangnow. Ent. Rundsch. 1935. 52. p. 205.
The apical patch brick-red instead of the normal red-brown.

ab. obsoleta Lempke. Tijdschr. Ent. 1959. 102. p. 113.
Forewings very feebly marked, the dark apical blotch is absent but the brown spot which it contains as a rule, is clearly visible.

ab. suffusa Stephens. Ill. Haust. 1835. 4. App. p. 385. (fig. vol. 2. pl. 16. f. 1. descript. [illegible]).
The hindwings pale glaucous-ash, with two angulated fuscous transverse strigae.
The figure shows the forewings more or less normal although the artist has made the whitish transverse lines very wide and prominent. The hindwings are most peculiar, pale whitish-grey with a basal, antemedian, postmedian, and wide marginal bands of somewhat darker grey.. Possibly the hindwings lack pigment through pressure on the pupa, the form would then be pathological.

hybrid inversa Tutt. Brit. Lep. 1906. 5. p. 21.
♂ pigra + ♀ curtula

p.1. Habrosyne Hubner.

pyritoides Hufnagel. Berl.Mag.1766.3.p.400.
= derasa Linnaeus. Syst.Nat.Ed.12.1767.p.851.

aberrational forms etc.

pyritoides Hufn. typical form -- forewings decorated or variegated with grey and ferrugineus,with white lines.

ab.miranda Cockayne. Ent.Rec.1952.64.p.192.pl.8.f.12.
On the forewing the basal area is normal,the white costal stripe is broken by two thin lines which run obliquely up from the reniform.Between the oblique white stripe near the base of the wing,the white stripe along the costa and the white loops distal to the median area,the space is filled with dark brown tinted with orange,especially towards the inner margin;externally this ends in three dark brown spikes pointing towards the termen,limited by two thin blackish-brown lines which are the normal markings greatly accentuated;near the tornus there is a dark mark bounded internally and externally with white;the oblique white stripe near the termen is less sharply defined than usual and is slightly deflected on reaching the dark mark at the tornus;the white loops along the termen are accentuated.The hindwings have the dark band across the middle more distinct than usual,but the marginal dark band is paler than normal.

ab.delineata Lempke. Tijdschr.Ent.1960.103.p.192.pl.20.f.2.
On the forewings the postdiscal dentated line,which starts at the inner margin,is absent.
From the figure this is very similar to the preceding miranda Cockayne which also has this dentated line absent,but the other markings in delineata are more normal than in miranda.

ab.brevipennis Lempke. Tijdschr.Ent.1960.103,p,192.
All the wings distinctly shortened.

p. 1. Thyatira Hubner.

batis Linnaeus. Syst. Nat. Ed. 10. 1758. p. 509.

aberrational forms etc.

batis Linn. typical form --- forewings fuscous, with five white spots.

ab. juncta Tutt. Brit. Noct. 1891. 1. p. 2.
Forewings with the two rosy spots near the apex joined together.

ab. conflua Rebel. (nom. nov. pro confluens Marschner.) Berges Schmett. 1910. p. 303.
= variabilis Turner. (nom. nov. pro confluens Marschner) Brit. Noct. Suppl. 1926. 1. p. (12).
= confluens Marschner. (nom. preoc. Reuter.) Z. Wiss. Ins. 1908. 4. p. 382. fig. p. 383.
The spots of the costa near the apex are united with that at the tornus by a bridge-like spot, forming a band on the dark ground. The inner marginal spot fails completely and the three rosy spots in the basal area are melted together with only one minute kernel.
The figure shows the pre-apical spot united with the tornus spot, not the apical one

ab. confluens Reuter. Ent. Tidskr. 1890. 11. p. 201. fig.
Forewings with the base and centre dull reddish-white, the costal margin with an almost semi-oval, dull brownish-olive spot before the middle; from thence to the hind - margin dull, sparingly and very obsoletely subfasciate, dusted with fuscous; The outer third of the wing distinctly dull brownish-olive, adorned with the typical spots, but these outer spots much more obsolete than in the type; fringes unicolorous fuscous. Hindwings as in the type but the median fascia paler, the abdomen whitish.
The figure shows the forewings with no basal or inner marginal pale blotches; the costa shows, near the base, a dark stripe, interrupted in the position of the normal pale round spot, then followed by a triangular dark spot (which is normal) the pale round spot being absent but the apical one present, although much smaller than usual. The pale round spot at the tornus is also very much smaller.

ab. albopunctata Spuler. Schmett. Eur. 1908. 1. p. 333.
On the forewings a row of whitish spots between the apical rosy spot and the one at the tornus.

ab. derosea Maurer. Jahres-Ber. Wien. Ent. Ver. 1910. 20. p. 41.
Instead of the rosy-red spots of the forewing, the colour is changed to white and partly bone-yellow and the ground colour deep black instead of rusty-brown. Hindwing very dark dusted as far as the base.

ab. indecorata Turner. Brit. Noct. Suppl. 1926 (Aug). p. (12).
= phaea Dannehl. Ent. Z. 1926 (Dec.) 40. p. 400.
The pink colouring of the back of the thorax and of the large spots of the forewing is replaced by pale buff.
Very similar to the preceding but if the ground colour is taken into account not so dark. In derosea the ground colour of the forewing is intense black and the hindwing is dark dusted right up to the base. In indecorata the ground colour is presumably normal. The form is not racial as the author suggests.
Dannehl's phaea had the rosy colour changed to a bitish olive-brown

p.1. Tethea Ochsenheimer.

ocularis Linnaeus. Syst. Nat. Ed. 12. 1767. p. 807.
= octogena Esper. Eur. Schmett. 179-. 4. p. 388. pl. 1-2. f. 4.
= octogesima Hubner. Samml. Eur. Schmett. 1800-03. pl. 45. f. 299.

aberrational forms etc.

ocularis Linn. typical form -- forewings grey, with pale fascia bordered with black lines and containing ocellated mark.

ab. interrupta Spuler. Schmett. Eur. 1908. 1. p. 334.
The outer line bordering the central area is interrupted by the reniform, sometimes also the inner border line by the orbicular. Either or both forms can be called interrupta.

ab. rosea Tutt. Brit. Noct. 1891. 1. p. 3.
Forewings entirely suffused with rich red colour.

ab. fusca Cockayne. Ent. Rec. 1944. 56. p. 53.
Forewings, hindwings and thorax are much darker and more fuscous than in the typical form and lack the pinkish hue, the darker colour makes the reniform and orbicular and the pale band on the hindwings more conspicuous.

ab. brunnea Lempke. Tijdschr. Ent. 1960. 103. p. 202.
The ground colour of the forewings clear pale brown.

ab. variegata Lempke. Tijdschr. Ent. 1960. 103. p. 202
The central area of the forewings is of a pale colour and sharply contrasts with the darkened basal and outer areas.

ab. basifusca Lempke. Tijdschr. Ent. 1960. 103. p. 202.
The basal area of the forewings is darkened, the rest is of a normal colour.

ab. mediofusca Cockayne. Ent. Rec. 1952. 64. p. 192. pl. 8. f. 13.
On the forewings normally the central area is bounded on each side by two thin parallel lines but in this aberration it is bounded by a single thicker line on each side; in the median area there is a fuscous band which includes the stigmata but which becomes narrower towards the inner margin; parallel with the antemedian line but nearer to the base is a broad fuscous line and between it and the antemedian is a distinct pale band; there is a similar pale band external to the postmedian line, bounded externally by a broad fuscous line. Hindwings normal.

ab. discolor Lempke. Tijdschr. Ent. 1938. 81. p. 251.
The transverse lines of the forewing weak or absent.

ab. clausa Lempke. Tijdschr. Ent. 1938. 81. p. 250.
On the forewing the transverse lines which border the median area join each other on the inner margin.

ab.cotangens Lempke. Tijdschr.Ent.1960.103.p.202.
The lines bordering the central area of the forewings touch each other below the discal spots and do not separate again.

ab.separata Lempke. Tijdschr.Ent.1960.103.p.201.
The orbicular and reniform stigmata do not touch each other.

ab.confluens Lempke. Tijdschr.Ent.1938.81.p.251.
The reniform and orbicular stigmata flow together to become one spot.

ab.microphthalma Cockayne. Ent.Rec.1951.63.p.30.pl.2.f.1.
On the forewings the stigmata do not touch one another; they are much reduced in size and almost completely filled with dark scales, so that the characteristic figure eighty mark is lost.

ab.frankii Boegl. Mitt.Munch.Ent.Ges.1920.10.p.21.fig.
Darkened in exactly the same way as ab.albingensis of Tethea or, but the two transverse lines on the forewing are still visible, in ab.albingensis they are not. Hindwing with the dark marginal area bordered on its inner side with a pale band whi which is not present in albingensis, the whole of the hindwing is darker than in normal specomens.
The figure shows the forewings black except for the pale stigmata and the hindwings heavily dark dusted.

ab.fasciata Lingonblad. Notul.Ent. .29.p.82.

hybrid fletcheri Tutt. Brit.Lep.1906.5.p.35.
Between ocularis ♂ and or ♀.

p.1. Tethea Ochsenheimer.

or Schiffermuller. Wien.Verz.1775.p.97.
= ypsilon-graecum Goeze. Beitr.1781.3.(3).p.253.
= consobrina Borkhausen. Scriba's Beitr.1790.1.p.66.pl.6.f.4b.
= octogena Esper. Eur.Schmett.1792.4.p.388.pl.128.f.3.
= gemina Beckwith. Trans.Linn.Soc.1794.2.p.4.pl.1.f.6.

aberrational forms etc.

or Schiff. typical form -- the original description merely says forewings greyish.

ab.flavistigmata Tutt. Entom.1888.21.p.46.
The stigmata of a decided deep yellowish-orange colour.

ab.fuscostigmata Strand. Arch.Math.og Nat.1903.25.p.22.
The reniform and orbicular of rusty coloration instead of greenish and often with dark centres.
Description from Seitz. I have not seen the original.

ab.confluens Closs. Int.Ent.Z.1917.11.p.84.
= unimaculata Marschner. (nom.preoc.Auriv.)
The pale stigmata united or confluent.
I have not seen the description of unimaculata Marsch.

ab.unimaculata Aurivillius. Nord.Fjarilar.1888.p.77.
The orbicular stigma is absent.

ab.obsoleta Valle. Anim.Fenn.1937.3.p.114.
The stigmata are completely absent and the transverse lines are indistinct or shadowy.

ab.interrupta Lempke. Tijdschr.Ent.1938.81.p.249.
The outer transverse line of the median area is cut by the reniform,or the inner line cut by the orbicular.

ab.tangens Strand.(Nordstrom).Ent.Tidskr.1927.48.p.56.(descript. fig.vol.[illegible].[illegible].)
In the forewings the transverse lines are very near to each other and touch shortly below the reniform,then diverge,and draw towards each other near the inner margin but do not unite.

ab.juncta Kaucki. Polsk.Pismo.Ent.1924.1.p.40.
In the forewings the transverse lines are much nearer together and join at one point near the inner margin. They form a shape similar to a figure 8 but open at the top. In addition there are no other transverse markings on the wings.
Apparently the lines join above the inner margin,diverge and then unite again on the inner margin,forming the bottom part of an "8",the top being open on the costa.

ab.clausa Wehrli. Verh. Naturf. Ges. Basel.1917.28.p.144.
On the forewings the tranverse lines bordering the middle area touch each other on the inner margin.
I have not seen the original description.

ab.simplex Lempke. Tijdschr.Ent.1960.103.p.198.
On the forewings the middle area is bordered on both sides by only one transverse line.

ab.unifasciata Spuler. Schmett.Eur.1908.1.p.334.
On the forewings the outer transverse line of the middle area is obsolete,leaving only the inner transverse line area,standing out darker.

ab.fasciata Spuler.(Teich.) Schmett.Eur.1908.1.p.334.
Forewings on the inner side of the middle area,three,and on the outer side,two, prominent,wide,blackish transverse lines.
Spuler gives Teich as the author with no reference.

ab.fasciata Stockl.(nom.preoc. Spuler.) Polsk.Pismo.Ent.1942.1.p.59.
Forewings with a 3-4 mm. wide pale grey band in the central area.

ab.nigrofasciata Lempke. Tijdschr.Ent.1960.103.p.198. pl 19 f.4.
The central area of the forewings black,the basal and outer areas of a pale colour, the markings normal.

ab.gaelica Kane. Entom.1894.27.p.125.(fig.Entom.34.pl.4.f.10.)
The ground colour pearly white,almost obliterating all traces of the stigmata,and the fasciae are formed of very broad and almost black lines.

ab.dilutior Rangnow. Ent. Rundsch.1935.52.p.205. Rangnow plate 3.f.27b.
Unicolorous pale brownish with only quite shadowy indications of the lost markings, in the costal area.Hindwings paler than the forewings.

ab.discolor Warren. Seitz Macrolep.1912.2.p.327.pl.56 row a.
Fore and hindwings dull brown-grey with the markings blurred,the stigmata usually plain.

ab.obscura Spuler. Schmett.Eur.1908.1.p.334.
Uniformly darker brown-grey tinted specimens with darker hindwings.
Spuler says this occurs often coupled with the absence of the orbicular.

ab.nigrescens Lempke. Tijdschr.Ent.1960.103.p.199.pl.19.f.19.
Ground colour of the forewings black-grey to blackish,all the markings distinctly visible.

ab.costaenigrata Kujau. Int.Ent.1.1917.10.p.141.
The markings and colour typical but the veins of the forewings black-dusted and leaving paler longitudinal zones between them as in the melanic form allingoradiata Burgs.

ab.radiata Lempke. Tijdschr.Ent.1960.103.p.139.pl.19.f.8.
The nervures of the forewings have a pale colour from the [illegible] submarginal band,and cross the postmedian band.
Similar in appearance to the preceding costaenigrata Hujan but actually the reverse manner of shading,the veins being pale in the present form and the interspaces between them pale,in costaenigrata in which the veins are dark.

ab.albingensis Warnecke. Ent.Z.1908.22.p.8.fig.p.126.
Melanic form. Thorax deep black,abdomen more grey-black. Forewings deep black,except for the stigmata which contrast sharply in whitish-green,but pale slightly towards the margins where the normal markings show weakly. Hindwings dark grey,noticeably darker than typical.

ab.albingoflavimacula Hasebroek. Int.Ent.Z.1916.10.p.97.
Form of albingensis Warn. Thorax and forewings deep black but the stigmata brownish-yellow instead of whitish-green.

ab.albingosubcaeca Bunge. Int.Ent.Z.1913.(June).7.p.85.pl.8.f.5.
= roberti Ruhmann. Ent.Z.1913.(July).27.p.80.
Form of albingensis Warn. The thorax and forewings black but the pale stigmata completely absent.

ab.marginata Warnecke. Int.Ent.Z.1911.5.p.241.fig.
Form of albingensis Warn. The basal and middle field black but the marginal area pale grey,forming a marginal band,the black and grey showing a sharp division. The stigmata are whitish. The hindwings do not show a band.
The underside is not mentioned but Hasebroek says that marginata has the pale band only on the upperside and names a form in which it shows on both wings on the underside as ab.permarginata.

ab.permarginata Hasebroek. Int.Ent.Z.1914.8.p.53.fig.
Form of albingensis Warn. Similar on the upperside to ab.marginata Warnecke which has a pale marginal band on the upperside of the forewings,which are black. In permarginata there is a pale marginal band on the underside of both fore and hindwings.

ab.albingoradiata Bunge. Int.Ent.Z.1911.5.p.287.(fig.vol.7.pl.8.f.4.)
Form of albingensis Warn. Thorax and base of forewings deep black becoming a little paler towards the outer margin,the stigmata pure white. Between the veins there are seven white longitudinal streaks,the lowest,starting 4mm.from the base,is the longest and broadest and is between the submedian and median veins,just above the inner margin. These streaks run up to the apical region,becoming shorter as they approach the costa.

subsp.hibernica Turner. Brit.Lep.Suppl.1927.39.p.(27).
Characterised by the absence of rose or purplish tint,the ground colour paler grey than British specimens in general,the stigmata inconspicuous,not being thrown into relief by the fuscous ground colour as in most Scotch and English specimens. The fasciae on either side of the stigmata are strongly marked. Ireland.

subsp.scotica Tutt. Entom.1888.21.p.46.
Ground colour paler grey costa strongly tinged with pink,the transverse lines more strongly marked,especially in the females. The subsp.from Scotland.

p.1. Tethea Ochsenheimer.

duplaris Linnaeus. Faun. Suec. 1761. 2. p. 352.
= bicolorata Hufnagel. Berl. Mag. 1766. 3. p. 410.
= ruficollis Brahm. Ins. Kal. 1791. 2. p. 345.
= bipuncta Borkhausen. Eur. Schmett. 1792. 4. p. 627.
= notata Fabricius. Ent. Syst. 1793. 3. (1). p. 486.
= undosa Hubner. (ondosa on plate). Samml. Eur. Schmett. 1800-03. Noct. pl. 44. f. 211.
= britannica Turner. Brit. Noct. Suppl. 1928. 40. p. (84).

aberrational forms etc.

duplaris Linn. -- typical form - wings cloudy-grey with whitish transverse median stripe and two black spots at end of discoidal cell.

ab. argentea Tutt. Entom. 1888. 21. p. 47.
The ground colour silvery white instead of the usual grey, the transverse lines very distinct. The forms bears a slight superficial resemblance to T. fluctuosa.

ab. obscura Tutt. Entom. 1888. 21. p. 47. (Brit. Noct. vol. 1. p. 5.)
Forewings of an almost unicolorous leaden-grey.
Tutt adds to this description in Brit. Noct. 1. p. 5. and states that the base and subterminal line are faintly paler.

ab. pulverosa Warren. Seitz. Macrolep. 1912. 2. p. 327. pl. 56 row b.
Forewings powdery-grey without brown admixture, the basal area and subterminal line alone showing pale from the dull grey ground.

ab. unicolor Lempke. Tijdschr. Ent. 1960. 103. p. 196. pl. 20. f. 9.
Forewings unicolorous black-grey or blackish, the two discal spots distinctly visible.
Tutt wrongly considered this the type of the species.

ab. brabantia Derenne. Rev. Mens. Soc. Ent. Nam. 1924. 24. p. 56 duplicated.
Forewings violet-grey with a darker median band composed of four undulate lines. This band is followed exteriorly by a clear area of bluish-white in which the usual two black spots are situated. In addition the basal area is bluish-white and the terminal area is also traversed by a yellowish-white undulate line. Hindwings yellowish-grey with a lighter transverse band.

ab. unipunctata Spuler. Schmett. Eur. 1908. 1. p. 335.
Forewings showing only the upper black spot of the normal two at the end of the discoidal cell.

Tethea Lehsenheimer.

p.1.

fluctuosa Hubner. Samml. Eur. Schmett. 1800-03. pl. 44. f. 1.

aberrational forms etc.

fluctuosa Hbn. typical form --- the figure shows the forewings silvery grey with broad dark median band

ab. concolor Lempke. Tijdschr. Ent. 1938. 81. p. 248. (fig. vol. 103. pl. 2. f. 7)
The ground colour unicolorous dark grey, without white, the markings normal, as dark as ab. albilinea Cockayne, but the stripes grey.

ab. unicolor Lempke. Tijdschr. Ent. 1960. 103. p. 195. pl. 20. f. 8.
Extreme form of the preceding concolor in which all the markings on the forewings have disappeared with the exception of the submarginal line which is feebly visible.

ab. albilinea Cockayne. Ent. Rec. 1951. 63. p. 30. pl. 2. f. 1.
In the forewings the basal and marginal areas are dark, almost as dark as the median areas, which are bounded internally and externally by white stripes. Lempke's concolor is little different and hardly worth separating but the author says albilinea has sharper white stripes.

ab. effusa Lempke. Tijdschr. Ent. 1960. 103. p. 195. pl. 20. f. 4.
The central area of the forewings unsharply bordered by a broad white band in which the dark dentated line which is usually present, fails.

ab. bifasciata Richardson. Entom. 1958. 91. p. 211. pl. 4. f. 6.
The fuscous median area in the forewings is sharply divided into two by a dark angulated inner band, approximately one eighth of an inch wide, which contrasts strongly with the paler outer band of approximately three eighths of an inch in width. Basal and terminal areas normal.
The description is somewhat misleading, the figure shows the median area of normal shade but with the ante and postmedian lines filled in with darker fuscous and forming an inner and outer band, the inner one being darkest.

ab. obscura Burrau. Opuse. Ent. 1965. p. 94.

p.1. Asphalia Hubner.

diluta Schiffermuller. Ges.Ges.177[illegible].[illegible].
= ambigua Fabricius. Mantissa.1787.[illegible].
= fasciculosa Borkhausen. Eur.Schmett.1790.[illegible].
= bistrigata Borkhausen. Eur.Schmett.1790.[illegible].

aberrational forms etc.

diluta Schiff. typical form -- the original description merely says "the ground Grey". It is generally regarded as being rather pale grey with the transverse bands light brown. From central and southern Europe

subsp.hartwiegi Reisser. Zts.Ost.Ent.Ver.1927.12.p.25.(descript.p.15.)pl.3.f.1-2.
According to Lempke this is the subsp.from N.Europe which includes Britain. The typical form occurs in Central and South Europe and had the median area greyer than the basal and outer,whilst the bands are light brown. The subsp.hartwiegi differs in having the ground colour more even or monotonous,and the bands usually darker. The description of hartwiegi is forewings grey with the transverse bands dark,sharp and distinct,the basal one defined on its outer side by a blackish line,the outer one on its inner side by a similar line.Described as a local race from N.Germany. Lempke has named the form with brown-black transverse lines ab.fuscofasciata but its description is much the same as that of hartwiegi itself.

ab.variegata Spuler. Schmett.Eur.1908.1.p.235.
Grey-brown with narrow transverse bands which are brown,the outer one on its outer side is yellowish-white bordered,the inner band is similar and forms a large yellowishwhite spot in the basal area.
The description is not very clear. Abel in Berge's Schmett.says the form has narrow brown transverse bands bordered on the outer side with yellowish-white and in the basal field a yellowish-white spot.

ab.obsoleta Lempke. Tijdschr.Ent.1960.103.p.204.
The postmedian band on the forewings is absent or obsolescent,the antemedian band much feebler than normal.

ab.angulata Cockayne. Ent.Rec.1951.63.p.30.pl.2.f.[illegible].
Forewing with the postmedian line bent at a sharp angle in the middle of the wing so as to unite on the costa with the antemedian and to approach it closely on the inner margin,thus forming a V shaped placed sideways.

ab.omicron Cockayne. Ent.Rec.1951.63.p.30.pl.2.f.3.
Forewing between the two dark transverse bands dark scales run along the costa; the centre of the median area is occupied by a circular mark like the letter O, from which two transverse lines run to the inner margin,where they meet. Hindwing with the transverse line faint and nearer to the base than usual.

ab.fuscofasciata Cockayne. Ent.Rec.1951.63.p.30.pl.2.f.4.
Forewing with the median area completely or almost completely filled with dark scales forming a broad band; the basal and marginal areas are pale.

ab.fuscofasciata Lempke. (nom.preoc.Cockayne). Tijdschr.Ent.1960.103.p.204.
The ground colour not darkened,bands on the contrary brown-black,solid,sharply contrasting.

ab. latimedia Warren. Seitz Macrolep.1912.2.p.330.pl.56.b.
Darker grey examples. The narrow pale median area becomes as dark as the band ,which are not filled in with brown,forming a broad dark median fascia edged by pale lines.

ab. asemata Dannehl. Ent.Z.1925.39.p.12.
Markingless and dark grey.

ab. nubilata Robson & Gardner. Young Nat.1886.7.List p.13.
The type specimen in the R.C.K.collection shows the ground colour much darker than normal and the trasverse bands dark chocolate-brown,the basal area also chocolate-brown thus making four transverse bands,the strong broad subterminal making the fourth.
I have not seen the original description.

ab. melanarufa Chalmers-Hunt. Ent.Rec.1961.94.p.281.pl.7.f.2.
Forewing ground colour rufous, with a broad,blackish,suffused median band; other markings absent or much obscured.

S. & B. 41.
p 1.

flavicornis Linnaeus. Syst. Nat. 1758. Ed. 10. p. 518.
= cinerea Hufnagel. Berl. Mag. 1766. 3. p. 416.
= sulphureo-maculata Retzius. Gen. Spec. Ins. 1783. p. 47.
= luteicornis Haworth. Lep. Brit. 1809. p. 252.

aberrational forms etc.

flavicornis Linn. typical form -- forewings grey, with three black stripes. The antennae orange-yellow.

subsp. galbanus Tutt. Brit. Noct. 1891. 1. p. 6.
subsp. anglica Houlbert. Lep. Comp. 1921. 18. p. 214. fig. 57.
The race from England. The forewings grey to greenish-grey and narrower or more elongated. Houlbert's description.
Tutts galbanus must stand although the description would seem to be of an aberration. Fws yellowish-green with exceedingly pale transverse markings, stigmata pale & indistinct, the costa at it's base & beyond the stigmata, yellow. Hindwings very pale

ab. interrupta Houlbert. Lep. Comp. 1921. 18. p. 215.
The orbicular prolonged or elongated, so that it makes a slight incision into the outer line of the antemedian group.

ab. unimaculata Maslowscy. Polsk. Pismo. Ent. 1929. 8. p. 50.
On the forewings only the orbicular is present, the reniform obsolete. Other markings normal.

(nom. praeoc. Meves 1914) — see p. 2.
ab. obsoleta Maslowscy. Polsk. Pismo. Ent. 1923. 2. p. 131. pl. 2. f. 13.
The two stigmata almost obliterated.

ab. confluens Klemensiewicz. Spraw. Kom. Fizyogr. 1911-12. 46. p. 18.
= confluens Heinrich. Dtsch. Ent. Z. (1916). 1917. 7. p. 524.
= confluens Maslowscy. Polsk. Pismo. Ent. 1923. 2. p. 128. pl. 1. f. 5.
The orbicular and reniform fused or flowing together.

ab. fuscomaculata Closs. Int. Ent. Z. 1917. 11. p. 84.
The stigmata filled up with dark brown.

ab. nigromaculata Lempke. Tijdschr. Ent. 1960. 103. p. 206. pl. 17. f. 6.
The stigmata surrounded by a strong black line and almost completely filled up by black scales.

ab. simplex Lempke. Beaufortia 1964. 11. p. 144.
On the forewings the central area is bordered on both sides by a single line.

pl. 1. f. 2852
ab. haverkampfi Lambillion. Rev. Mens. Soc. Ent. Nam. 1903. 3. p. 31. (fig. Ann. S. Ent. Belg. 48
= unilinea Smith. Report & Proc. Chester Soc. Nat. Sci. Lit. & Art. 1947. p. 71. fig. 2.
Unicolorous silvery-grey, lighter than normal, costa whitish. Of the markings there only remains the black subterminal line, the stigmata however remain very visible, especially the orbicular which contains a black spot. Hindwings pale grey with darker marginal border, the median line absent.

ab. angustifasciata Heydemann. Ent. Z. 1938. 52. p. 36. pl. 1. f. 13. (descript. p. 48.)
The outer lines of the median area are almost completely lost, only the inner ones remain but only distinctly marked at the costa. They are only half the normal width apart so that they touch the inner and outer edge of the orbicular, below this they run at a slight distance from each other to the inner margin, thus strongly narrowing the median area.

ab. melanalba Houyez. Lamb. 1946. 46. p. 91.
The outer and inner thirds of the forewing black, the median area grey, the greenish orbicular is hardly visible. Hindwings with the outer half black, the basal area almost pure white.

ab. nigrescens Houlbert. Rev. Comp. 1921. 18. p. 215. pl. 439. f. 3031.
Forewings showing three wide black bands extending transversely, which correspond with the normal three groups of sinuous lines.

ab. medionigra Hofer. Verh. zool.-bot. Ges. Wien. (1923) 1924. 73. p. (193).
The central area of the forewing broadly darkened to black so that the greenish stigmata stand out sharply from it.

ab. galbanus Tutt. Brit. Lep. 1891. 1. p. 6. see subsp. anglica on p.1.
Forewings yellowish-green with exceedingly pale transverse markings, the stigmata pale and indistinct, the costa at its base and beyond the stigmata yello . Hindwings very pale.

ab. nigroplumbosa Smith. Report & Proc. Chester Soc. Nat. Sci. Lit. & Art. 1947. p. 71. fig.
Forewings with smoky-grey ground colour and a dark blotch at the apex, the base black, and costa darkened. Hindwings almost uniformly grey there being no trace of the paler transverse stripe. Head, thorax and abdomen black.
Type in the Rothschild-Cockayne-Kettlewell collection, B.M.

ab. signatipennis Smith. Report & Proc. Chester Soc. Nat. Sci. Lit. & Art. 1947. p. 71. fig. 4.
Forewings with the ground colour smoky-grey. The basal is the first line, the second third, fourth and fifth are broad and have the appearance of single lines. The third and fourth lines join together on the inner margin and the whitish orbicular runs into the fourth line which it almost divides. All these lines are black. Beyond the fifth line is the normal sinuous subterminal which is dark grey. Hindwings smoky-grey, paler at the base, with a trace of a central whitish band. Head, thorax and abdomen smoky-grey.

ab. pseudoalbingensis Franzius. Ent. Z. 1938. 52. p. 160. (fig. vol. 51. p. 396. f. 1)
Completely black except for the green stigmata, having great similarity to f. or ab. albingensis Warnecke.

ab. clausa Lempke. Tijdschr. Ent. 1938. 81. p. 259.
The two transverse lines which border the central area join each other at the inner margin.

ab. unimaculata Meves. Ent. Tidskr. 1914. 35. p. 14.
The orbicular completely absent. (From the German translation on p. 40-1.)
This is an earlier name than unimaculata Masl. (1929), which, however, had the reniform absent.

For subsp. scotica see next page.

subsp. scotica Tutt. Entom. 1888, 21. p. 47.
The race from Scotland and north England. Ground colour very much darker grey than the Southern English form, the markings very distinct. Usual in Rannoch and Perth, also occurring in Yorkshire.

ab. rosea Tutt. Brit. Noct. 1891. 1. p. 6.
Form of subsp. scotica Tutt. Like scotica, brightly marked with distinct yellow stigmata but the forewings richly suffused with reddish (or rather purplish) colour. From Rannoch.

ab. atrescens Cockayne. Ent. Rec. 1951. 63. p. 91. pl. 4. f. 6.
Forewing with the whole surface much darkened, especially the median area, in which the pale orbicular stands out conspicuously. Hindwings slightly darker than usual. Thorax and abdomen nearly black.

p.1. Polypleca Hubner.

ridens Fabricius. Mantissa 1787.2.p.180.
= erythrocephala Esper.(prim.homonym Schiff.)Eur.Schmett.1786.4.389
= xanthoceros Borkhausen. Eur.Schmett.1792.4.p.276.
= chrysoceras Beckwith. Trans.Linn.Soc.Lond.1794.2.p.3.pl.1.

aberrational forms etc.

ridens Fabr. typical form -- forewings green,varied with fuscous and white, with a basal macule and double undulate stripe,white

ab.xanthoceros Hubner.(nom.preoc.Borkh.). Samml.Eur.Schmett.1800-03.Noct.pl.43.f205
The figure shows the forewing mostly dark green,the transverse lines showing only as fine yellowish-white stripes,the stigmata also yellowish-white.
The name was first used by Borkhausen for what would appear to be the typical form since he makes the same as erythrocephala Esper,but no mention of green is made.

ab.variegata Spuler. Schmett.Eur.1908.1.p.336.
Forewings blackish but with white stigmata and,in the middle field,spotty whitish markings.

ab.serenoides Houlbert. Lep.Comp.1921.18.(2).p.204.pl.489.f.4030.
Differs from ridens in the more extensive coloration of the white areas of the forewing.As a result the brown transverse lines.and the stigmata stand,out more conspicuously.

ab.concinna Warren. Seitz Macrolep.1912.2.p.330.pl.56 row.c.
The basal area and the whole space beyond the median fascia to the termen,is pale bluish-green.The extreme base shows some olive and fuscous scales,the median area is olive-fuscous,with the two lines and the veins black,the stigmata marked with pale green scales.The fringe white,intersected by black wedge-shaped marks.

ab.singularis Houlbert. Lep.Comp.1921.18.(2).p.206.pl.489.f.4029.
Forewings ashy-grey,not olive-green. The markings as in ridens but much simplified the brown and white transverse lines wanting,only in the area neighbouring the fringe are some rather well-marked black spots.At the base of the the fringe is a series of very small spots ocellated with white which are never seen in ridens. The figure shows the forewing very pale grey with only scattered small black spots to show the position of the ususal markings.There is no trace of the usual green tint.
Described as a distinct species by Houlbert and placed as such in Seitz with the remark that it is probably only a rare form of ridens.Since no other specimen seems to have ever been taken it is assumed that it belongs to ridens.

ab.interrupta Tutt. Entom.1888.21.p.47.
Forewings with the base pale and the dark central transverse band broken up by a pale patch extending from costa to inner margin,the dark band being only represented by two dark lines on either side of this pale patch. The type form is figured in Newman's Brit.Moths p.243.and has the transverse band complete.
Tutt considered the type form to be the banded one and named interrupta,in which the band is divided by a pale line or patch.

ab. interrupta-ochrea Tutt. Brit. Noct. 1891, 1, p. 7.
The pale patch or transverse marking in the central area between the two dark transverse lines is ochreous. See the preceding ab. interrupta Tutt.

ab. interrupta-alba Tutt. Brit. Noct. 1891, 1, p. 7
The pale patch or transverse marking in the central area between the two dark transverse lines is white. See ab. interrupta Tutt on previous page.

ab. bilinea Lempke. Tijdsch. Ent. 1960, 103, p. 207.
Forewings unicolorous greenish. The markings consist of only two sharply contrasting blackish transverse lines which border the median area.

ab. unicolor Cockayne. Ent. Rec. 1951, 63, p. 31, pl. 2, f. 6.
Forewing almost unicolorous and as dark as the normal median area.
The type is in the E.C.K. collection and is unicolorous brownish black with some faint transverse lines, slightly paler but not standing out, in the basal area.

ab. nigricans Spuler. Schmett. Eur. 1908, 1, p. 336.
Forewings suffused with blackish, except for some remnants of the whitish transverse and subterminal lines. Hindwings and abdomen of the normal pale colour.

ab. fumosa Arnscheid. Tombus. 1955, p. 370.
Unicolorous dark grey-greenish, all the usual white flecks fail, the central area not standing out darker, only the thin black lines bordering the central area are discernible. The stigmata are feebly marked by a black outline and the veins in the the outer area lined in black. Hindwings suffused with grey in the outer half with the veins black-grey. Abdomen of the same dark tint of the forewings.

p.1. Orgyia Ochsenheimer.

antiqua Linnaeus. Syst. Nat. Ed. 10. p. 503.
= gonostigma Scopoli. (nec. Linn.) Ent. Carn. 1763. p. 199.
= paradoxa Retzius. Gen. Spec. Ins. 1783. p. 36.
= antiquus Schrank. Faun. Boica. 1801. p. 267.

aberrational forms etc.

antiqua Linn. typical form --♂ forewings with white lunule on outer angle of the inner margin, the ground colour brown. ♀ without wings.

ab. infernalis Rebel. Berge's Schmett. 1910. p. 114. (Barrett pl. 83. f. 2a.)
The wings much darker, black-brown.

ab. modesta Heyne. Soc. Ent. 1899. 14. p. 98.
Unifiform dull brown-grey, the markings effaced and the spots of the forewing not so strikingly white.

ab. grisea Denso. Iris 1912. 26. p. 132 & 134.
All the rich brown tones replaced by grey.

ab. dilutior Schultz. Ent. Z. 1910. 24. p. 35.
Much paler. Forewings brownish-yellow, the spots on the angle of the inner margin less distinct.
The hindwings are not mentioned.

ab. ovomaculata Schnaider. Polsk. Pismo. Ent. 1950. 19. p. 252.
The white spot on the outer angle of the inner margin is oblong, therefore drawn out in length.

ab. bicolor Lempke. Tijdschr. Ent. 1959. 102. p. 121.
Forewings from the base to the second transverse line pale brown, from this line to the outer margin bery dark brown, the two colours sharply contrasting.

ab. approximata Lempke. Tijdschr. Ent. 1959. 102. p. 121.
The two transverse lines on the forewing are close together.

ab. delineata Lempke. Tijdschr. Ent. 1959. 102. p. 121.
The two transverse lines of the forewings fail completely.

? zimmermanni Graeser. Berl. Ent. Z. 1888. p. 122.
From Amurland is not included as a British aberration, it would appear to be a distinct species or a hybrid.

p.1. Orgyia Ochsenheimer.

recens Hubner. Verz.bek.Schmett.1819.p.161.(fig. Samml.Eur.Bh.pl.20.)
= antiqua Scopoli.(nom.preoc.Linn.) Ent.Carn.1763.p.198.
= gonostigma Linnaeus.(nom.preoc.Scop.) Syst.Nat.Ed.12.1767.p.826.

aberrational forms etc.

recens Hubner. typical form -- figured by Hubner under the name gonostigma in Samml.Eur.Schmett.Bombyc.pl.20.f.78. The name gonostigma being preoccupied by Scopoli,Hubner's name "recens" is used. Wings greyish-brown with white spots on forewings at apex and inner margin.

ab.nigrescens Lempke. Tijdschr.Ent.1959.102.p.119.pl.13.f.3.
Ground colour of the forewings of a uniform blackish-brown, only the following markings are visible -the white apical spot of the forewings,a small brown spot before it,and the white spot near the inner margin.

ab.fusca Lempke. Tijdschr.Ent.1959.102.p.119.pl.13.f.1.
Ground colour of the forewings dark brown,but somewhat paler than the forewings, the normal markings still visible. Considerably darker than the typical form but very probably genetically different from the preceding nigrescens.

♀ ab.flavescens Maslowscy.(figured as flava).Polsk.Pismo.Ent.1923.2.p.133.pl.3.f.16.
Female which is pale ochreous-yellow instead of grey-black.

ab.delineata Lempke. Tijdschr.Ent.1959.102.p.119.
The two dark lines which border the central area of the forewing are absent so that these wings have become much more unicolorous.

p.1. Dasychira Stephens.

fascelina Linnaeus. Syst. Nat. Ed. 10. 1758. p. 503.
= Fascelinus Schrank. Faun. Boica. 1801. 2. (1). p. 266.

aberrational forms etc.

fascelina Linn. typical form -- grey ,forewings with black fascia and white spot in middle.

ab. laricis Schille. Soc. Ent. 1899. 14. p. 73.
Light ash-grey, almost unicolorous, the forewing hardly black and white dusted, both black transverse stripes shortened and hardly visible, weakly yellow sprinkled Larvae on Larch.

ab. unicolor Schultz. Ent. Z. 1910. 24. p. 35.
Light grey, unicolorous without marking and no sign of the orange or white dusting.

ab. callunae Peets. Jahresber. Naturhist. Ges. Hann. 1907. 55-57. p. 214.
Pale specimens with clear black markings.
I have not seen original description.

ab. alineata Warnecke. Zts. Wien. Ent. Ges. 1943. 28. p. 16.
An extreme form of the preceding ab. callunae Peets with the characteristic dark band in the outer part of the forewing absent.

ab. albida Cockayne. Ent. Rec. 1951. 63. p. 32.
Thorax, abdomen, legs and wings, whitish with a tinge of cream, the basal, ante and postmedian lines narrow and yellowish-grey in colour; the discoidal mark and subterminal line only just visible.

ab. ochreolinea Cockayne. Entom. 1951. 84. p. 241.
On the forewing all black markings are replaced by ochreous, the ante and post-median lines are broad and conspicuous.

ab. semistriata Cockayne. Entom. 1951. 84. p. 241. pl. 5. f. 8.
Forewing ground colour pale grey, basal, ante and postmedian lines present, subterminal line broad and black. There are three long black streaks between nervures 5 and 6, 6 and 7, and 7 and 8 respectively, running out from the subterminal line towards the apex; the most anterior streak is forked, that between 5 and 6 extends inwards to the discoidal spot. Hindwing pale grey, with darker nervures and a very large discoidal spot only a little darker than the ground colour.

ab. fuscomarginata Cockayne. Entom. 1951. 84, p. 241. pl. 5. f. 2.
Forewing with basal line broad but the ante and post median lines absent, the discoidal spot indistinct. The marginal area outside the subterminal line is very dark with a thick dusting of black scales and a narrow black line on the margin. Hindwing dark grey.
The ground colour of forewing is not stated but the figure shows it to be pale contrasting strongly with the dark marginal area.

ab.nigrofusa Cockayne. Entom.1951.84.p.242.pl.5.f.7.
Forewing ground colour rather pale grey,the basal line broad and black but the ante and postmedian lines are absent. There are three ill-defined broad black longitudinal stripes running from the basal line along the costa,the median nervure and the inner margin respectively,with a sprinkling of black scales in between them. The subterminal line is present,and from it a diffuse streak formed by many black scales on either side of nervure 2,and another between 5 and 6, run towards the base.

ab.nigricosta Cockayne. Ent.Rec.1951.63.p.32.pl.2.f.13.
On the costa of the forewing from the base to the point where the postmedian line usually starts,is a black mark widening to become triangular as it runs outwards, touching the black discoidal mark and reaching the median nervure at its outermost point; the ante and postmedian lines are absent and the basal and subterminal lines faint. Hindwing dark grey without markings.
The figure shows the ground colour of the forewing medium grey.

ab.albimacula Cockayne. Entom.1951.84.p.241.pl.5.f.1.
Ground colour of forewing dark grey,the base,costa and subterminal line from the costa to nervure 3 whitish,the rest of the subterminal line to the inner margin is indistinct; the reniform is white and very conspicuous on the dark ground. The ante and postmedian lines are only indicated on the costa. Hindwing normal.

ab.tristrigata Lempke. Tijdschr.Ent.1959.102.p.115.
Forewing with complete submarginal line instead of the few spots which normally indicate it.

ab.nigroperstrigata Kiefer. Ent.Z.1941.55.p.141.
Ground colour pure ash-grey,the costa of forewing white-dusted,with two blackish and complete transverse lines which reach the inner margin and which are very weakly yellow-dusted.

ab.proletaria Strand. Seitz Macrolep.1910.2.p.112.(from fig.H.-S. Syst.Bearb.Bomb. pl.17.f.88)
♂. Much smaller,29 mm.instead of the normal 40 mm. Ground colour olive-grey, with the two transverse lines rather indistinct and not reaching the inner margin, the discoidal spot more conspicuous than usual.

ab.medicaginis Hubner. Samml.Eur.Schmett.1800.Bomb.pl.21.f.81.
♀. Forewings very dark dusted.Hindwings with a submarginal row of dark spots.

ab.nigrotecta Dannehl. Mitt.Munch.Ent.Ges.1929.19.p.103.
Forewing completely black.Hindwing black-grey,cell spot feebly marked,the fringes a little paler.

ab.brevipennis Hoffmeyer. Flora og Fauna 1958.64.p.13.fig.p.12.
The wings shortened and rounded.

ab.destrigata Klemensiewicz. Spraw.Kom.fizyogr.Krakow.1912.46.p.6.

p.1. Dasychira Stephens.

pudibunda Linnaeus. Syst. Nat. Ed. 10. 1758. p. 505.
= justica Muller. Faun. Fridrichsd. 1764. p. 47.
= pudibundus Schrank. Faun. Boica. 1801. 2. (1). p. 265.

aberrational forms etc.

pudibunda Linn. typical form -- wings greyish, with three fuscous-grey fasciae.

ab. juglandis Hubner. Samml. Eur. Schmett. 1800-03. Bombyc. pl. 21. f. 84-85.
This is probably a synonym of the type but since some authors regard it as an aberration a description of the figure is given here.
The markings of the forewings heavier than normal. Hindwings with a complete transverse submarginal band. This latter is the only definite character, the rest of the markings, especially in the male figure, look unnatural and are probably an exaggeration on the part of the artist.

♀ ab. albescens Lempke. Tijdschr. Ent. 1937. 80. p. 278.
Ground colour whitish, without grey dusting, the markings distinct.

♂ ab. mixta Lempke. Tijdschr. Ent. 1959. 102. p. 116. pl. 12. f. 5.
The central area of the forewings is of a uniform dark colour and also the space between the submarginal line and the fringe is of the same colour; the basal area and a narrow space between the central area and submarginal line remain of the typi typical pale colour and contrast strongly. Hindwings as a rule also somewhat darkened.

♂ ab. fasciata Lempke. Tijdschr. Ent. 1959. 102. p. 115. pl. 12. f. 3.
The central area of the forewings completely darkened, the basal and outer areas remaining the normal pale colour.

♂ & ♀ ab. bicolor Cockayne. Ent. Rec. 1940. 52. p. 86. pl. 6.
♂ - The extreme base of forewing proximal to the basal line is pale grey; between the basal and antemedian lines there is a broad black band, 10 mm. wide at the costa, narrowing to about 5 mm. at the inner margin. The median band is pale grey with a slightly darker central shade, which becomes darker and broader so as to occupy the whole costal area and there is a conspicuous black crescentic discoidal mark. The whole marginal area distal to the postmedian line, is a deep blackish-grey, nearly black. Hindwing with the distal half dark grey. Fringes on forewing nearly black, on hindwing dark grey and slightly chequered. The median part of the thorax is blackish-grey.
♀ - The markings the same, but not so dark; the pale grey median band is much wider and the central shade is wider and paler; the discoidal mark is only faintly visible.

♀ ab. obscura Lempke. Tijdschr. Ent. 1959. 102. p. 116. pl. 12. f. 4.
The normal pale ground colour of the forewings densely powdered with dark grey scales, sometimes slightly tinted with brown, but the two central transverse lines still clearly visible. The commonest dark ♀ form, often considered as the ♀ of ab. concolor Stgr. but this is not correct.

♀ ab.brunnescens Lempke. Tijdschr.Ent.1959.102.p.116.pl.12.f.6.
Forewings of a uniform pale brown-grey with,at the utmost,only feeble traces of the transverse lines.

♂ & ♀. ab.fusca Lempke. Tijdschr.Ent.1937.80.p.278.
All the wings darkened to a unicolorous sooty or coffee-brown,without grey or black. Hindwings sometimes a little lighter;only weak traces of the markings.

♂ & ♀. ab.basigrisea Lempke. Tijdschr.Ent.1959.102.p.116.pl.12.f.7 & 8.
♂-Forewings black-grey,a little paler than typical ab.concolor Stgr.,the basal area paler,grey,distinctly contrasting. Sometimes there are feeble traces of transverse lines and of a paler subterminal line.Hindwings darker than in the typical form,but as a rule paler than in concolor. A common form among the dark males.
♀-much rarer with a paler basal area and possibly genetically connected with the ♂ form basigrisea.They are considered so for the time being,until more is known.

♂ & ♀ ab.concolor Staudinger. Cat.Edl.1861.p.29.(fig.H.-Sch.Syst.Bearb.2.Bomb.pl.30)
Forewings unicolorous dark grey.

ab.omicron Lempke. Tijdschr.Ent.1959.102.p.118.
The ante and postmedian lines of the forewings do not reach the costa;the antemedian is straight,the postmedian on the contrary is bent and touches the antemedian line at the inner margin and at the upper end of that line so that a figure results somewhat resembling an O.

ab.juncta Lempke. Tijdschr.Ent.1959.102.p.118.
The antemedian line of the forewings runs obliquely to the inner margin,where it touches the basal line.

ab.unilineata Lempke. Tijdschr.Ent.1937.80.p.278.
Forewings with a single transverse line,that in the centre.
Lempke gives a clearer description in vol.102.p.117,in which he says it is the antemedian line.

p.1. Euproctis Hubner.

chrysorrhoea Linnaeus. Syst. Nat.1758.Ed.10.p.[illegible].
= chrysorrhaeus Schrank. Faun.Boica.1801.2(1).p.254.
= phaeorrhoea Donovan. Brit.Ins.1813.16.p.39.pl.555.

aberrational forms etc.

chrysorrhoea Linn. typical form --- wings white, end of abdomen orange-yellow or reddish-brown.

ab.xanthorroea Oberthur. Lep.Comp.1916.12.p.282.
The abdomen hairs golden-yellow.
Described as a subspecies from Algeria but occurs amongst the typical form.

ab.fuscoabdominata Lempke. Tijdschr.Ent.1959.102.p.133.
The abdominal hairs dark brown to blackish-brown.

ab.abdominata Strand. Seitz Macrolep.1910.2.p.135.
The abdomen of the ♂ quite black.

ab.flavescens Hebel. Berge's Schmett.1910.p.116.(citing Iris 19.pl.2.f.1.)
Forewings yellow-brownish, without markings.

ab.fumosa Chalmers-Hunt. Ent. Rec.1951.63.p.145.
Forewings, hindwings, and legs tinged with smoke-grey, darker in the apical area of the forewings and along the nervures.
We have the type, the fringes of which are white so different from the following form.

ab.plumbociliata Heinrich. Dtsch. Ent. Z.1916.p.510.
The fringes of all wings blue-grey instead of white.

ab.nigricosta Lempke. Tijdschr.Ent.1959.102.p.134.
Costa of the forewings blackish.

ab.punctella Strand. Seitz Macro-Lep.1910.2.p.135.pl.21.f.row e.
Only a few isolated black spots on the forewing.

ab.auriflua Esper. Eur. Schmett.1785.3.p.207.pl.39.f.6.
= punctigera Teich. Corr. Nat.Ver.Riga.1889.41.p.87.
= punctifera Oberthur. Lep.Comp.1916.14.p.281.
Forewing with black spots at the end of discoidal cell, at the anal angle, and towards the apex.
punctigera Teich had the forewings showing black spots.
punctifera Ob. is merely a misspelling of punctigera Teich.
The figure and description of auriflua by Esper both stress the black spots on the forewing, it is, in my opinion, therefore the name for the spotted form and has priority over punctigera Teich. Most authors place auriflua as a synonym of the type but the Linnaean description says "Alta nivea etc.", completely white.

ab. nigrosignata Bundermann. Ent. Z. 1906. 20. p. 98. fig. p. 97. e-f.
The extreme spotted form. Numerous spots on the forewing, some of them uniting to form streaks. Very variable in this respect but usually with streaks at the base and in the central area. The hindwings also show this character, the blackish spots sometimes uniting to form a continuous submarginal line.

p.1. Euproctis Hubner.

similis Fuessly. Verz. Schweiz. Ins. 1775. p. 35.
(citing Roesel Ins. 1. pl. 21.)
= chrysorrhoea Esper. (nec. Linn.). Eur. Schmett. 1785. 3. pl. 99. f. 1-4.
= muriflua Fabricius. (nec. Esp.). Mantissa 1787. 2. p. p. 125.

aberrational forms etc.

similis Fuessly. typical form -- The figure by Roesel mentioned by Fuessly shows the wings white, the male with fuscous spot at anal angle of forewings, the female unicolorous.

ab. nyctea Grum Grshimailo. Horae. Soc. Ent. Ross. 1891. 25. p. 464.
♂ with a fuscous spot at anal angle and in addition one in the sub-basal area.

♂ ab. trimaculata Strand. Seitz. 1910. 2, p. 134.
Forewing with a fuscous spot in the sub-basal area, another opposite it on the costal margin, and another at the anal angle.
The spot on the costa is presumably in the basal area, above the sub-basal one.

♂ ab. quadrimaculata Strand. 1910. 2. p. 134.
Forewing with a fuscous spot in the sub-basal area, another above or opposite to it on the costa, a third spot on the costa in the sub-apical area, and a fourth at the anal angle.

♀ ab. punctellata Lempke. Tijdschr. Ent. 1959. 102. p. 132. (vol. 80. p. 284. in error.)
Female showing a black spot at the anal angle of forewing.
This description replaces that given in Tijdschr. Ent. 80. p. 284.

ab. immaculata Lempke. Tijdschr. Ent. 1959. 102. p. 132.
♂ with unicolorous white forewings without black spot or spots.

ab. nigrostriata Cockayne. Entom. 1951. 84. p. 244. pl. 5. f. 9.
On the forewing a black streak runs half way along the costa (from the base), and between all the nervures arising from the cell there are black streaks, which are most conspicuous on the anterior half of the wing; the nervures themselves are white; the black spot at the anal angle is large. Hindwing normal

ab. marginalis Cockayne. Entom. 1951. 84. p. 244. pl. 5. f. 3.
On the forewing a complete black sub-marginal line and on the hindwing a faint grey one.

ab. wilczyniskia Tize. Polsk. Pismo. Ent. .13. p. 108.

p.1. Leucoma Hubner.

salicis Linnaeus. Syst. Nat.1758. Ed.10.p.502.

aberrational forms etc.

salicis Linn. typical form -- wings white,the legs black with white rings.

ab.sohesti Capronnier. Comp.Rend.Soc.Ent.Belg.(1878)1879.21.p.CC.(Ann.Soc.Ent.Bel.
The white of the type replaced by scales and hairs of peraly-grey.On the forewings the grey tint is very marked towards costa and outer margin,as it also is on the hindwings outer border.Antennae,legs and abdomen also grey. p.100(cc)

ab.nigripennata Staudinger. Iris 1899.12.p.338.
The pectinations of the ♂ antennae much darker than normal,almost black.

ab.neumanni Bandermann. Ent.Anz.1929.9.p.240.fig.
Forewings with a row of black spots before the margins.On the hindwings one spot at the apex.

ab.nigrociliata Fuchs. Jahrb.Nass.Ver. Nat.1900.53.p.44.
Wings white,with the costa of the forewing from apex downwards for a good third of its length,finely but sharply coal-black on both sides.The fringes have a tendency to be grey-black or are completely grey-black but only appear black-flecked in their apical half.

ab.radiosa Smith. Ent.Rec.1954.66.p.97.pl.5.f.7.
The veins on forewings on the outer margin,and on part of the costa,black.
We have the type in the L.C.K.collection,the veins are much more dusted in the apical part of the wing.

ab.rubicunda Strand. Schrift.Nat.Ges.Danzig.N.F.1901.10.p.285.
Wings and hairs reddish,almost rose-red at the costa and inner margin.

ab.infranigricosta Lemke. Tijdschr.Ent.1959.102.p.129.
On the underside of the forewings a black line along the costa from base to about one third the length of the wing.

p.1. Lymantria Hubner.

monacha Linnaeus. Syst. Nat. 1758. ed. 10. p. 501.

aberrational forms etc.

monacha Linn. typical form -- wings white with undulating black lines, the abdomen ringed with red.

ab. lutea Auel. Sts. Wiss. Ins. Biol. 1908. 4. p. 39.
A pale form feebly banded with only remnants of the bands showing on the costa and inner margin of the forewings. The hindwings are still paler than in the type form and the pale red of the abdomen stretches almost to the thorax.
The name, which implies yellowish, is puzzling.

ab. kusnezovi Kolossov. Ent. Z. 1928. 41. p. 481.
The black or grey pigment fails completely, the head, tegulae and thorax only covered with white hairs. The forewings do not differ from hindwings in colour, the scales are white with a yellowish tint and very feeble addition of grey tint scattered irregularly but only seen with magnification. The rosy tint on the abdomen is only feebly seen.

ab. gracilis Krulikowsky. Rev. Russe. Ent. (1911) 1912. 11. p. 445.
Forewings completely white but the outer area showing a broad dark border. The body typical.

ab. obsoleta Schultz. Ent. Z. 1910. 24. p. 36.
On the forewings the dark transverse lines fail in the central part but remain in t the basal and outer-marginal areas.

ab. dorsomaculata Lempke. Ent. Rec. 1947. 59. p. 83. (fig. Tijdschr. Ent. 102, pl. 13. f. 4)
Forewings white with strong transverse lines and with a completely black spot or blotch in the middle of the inner margin.
In the figure given later this black blotch is the main character, standing out from the rest of the markings.

ab. subfusca Schultz. Ent. Z. 1910. 24. p. 36.
All that is black in the type is here yellow-brown and the abdomen is not red but yellow-brown.

ab. fasciata Hannemann. Int. Ent. Z. 1916. 10. p. 37.
Forewings with a broad dark middle band in which there is a white ring containing a black central spot.
Presumably near to nigra Freyer which has the broad band but no white ring.

ab. nigra Freyer. Neu Beitrg. 1833. 2. p. 5. pl. 98. f. 2. (nec. f. 3)
♂. Description useless. The fig. shows a broad dark median band filling the space betw the ante and postmedian lines and a marginal band of the same dark colour.
The ♀, on the same plate, is of a different form and has been named mediofasciata by Lempke.

ab. mediofasciata Lempke. Ent. Rec. 1947. 59. p. 83. (fig. Tijdschr. Ent. 102. pl. 1 f. 2.
= nigra Freyer. Neu Beitr. 2. pl. 98. fig. 3. nec fig. 2. (fig. 2 is nigra Freyer.)
Forewings with a complete dark central band.
The band in this form is narrower than in nigra Freyer.

ab. nigrilinea Cockayne. Entom. 1951. 84. p. 242. pl. 5. f. 4.
On the forewing a broad black streak runs from the base to the discoidal spot; the marginal area outside the subterminal line is black; the ante and postmedian lines are present, but the median line is absent. Hindwing with a dark grey border.

ab. mixta Lempke. Ent. Rec. 1947. 59. p. 84. (fig. Tijdschr. Ent. 102. pl. 14. f. 5.)
Forewings white as in type, with very intensive transverse lines, but the hindwings melanic.

ab. intermedia Lempke. Ent. Rec. 1947. 59. p. 84. (fig. Tijdschr. Ent. 102. pl. 14. f. 5)
The whole forewing powdered with grey-brown, the black markings normal but heavy.

ab. transiens Thierry Mieg. Le Nat. 1886. 8. p. 437.
Transitional between the type form and ab. eremita Hubner. The wings much darker than the type but much less so than in eremita.
I have not seen the original description.

ab. mediofusca Lambillion. Rev. Mens. Soc. Ent. Nam. 1919. 19. p. 38.
Forewings with a broad brown irregular band which occupies half the wing, the base white with a black point. The outer area is white with typical markings.

ab. albibasa Lempke. Ent. Rec. 1947. 59. p. 85. (fig. Tijdschr. Ent. 102. pl. 13. f. 6.)
♂ form. The forewings black with a white base.

ab. cucullina Cockayne. Entom. 1951. 84. p. 242. (see Barrett pl. 80. f. 1d.)
The whole of the forewing from base to postmedian line black. Hindwing unicolorous dark grey with a darker border. Abdomen normal.

ab. aethiops de Selys. Ann. Soc. Ent. Belg. 1857. 1. p. 32.
= transiens Lambillion. Rev. Mens Soc. Ent. Nam. 1909. p. 10. (nom. preoc. Thierry Mieg)
Completely black except for a series of white spots parallel with the outer margin of the forewings. The red border of the body hardly visible.

ab. atra Linstow. Ent. Z. 1907. 21. p. 97.
Forewings unicolorous black and markingless. Hindwings grey-brown, the body black.

ab. flaviventer Krulikowsky. Rev. Russe Ent. (1909). 1910. 9. p. 309.
= flavoabdominalis Schultz. Ent. Z. 1910. (May). 24. p. 36.
The red of the abdomen replaced by yellow.
I am not certain which of these names has priority.

ab. eremita Hubner. Samml. Eur. Schmett. 1803-08. Bomb. pl. 57. f. 246.
Forewings very much darkened, with no white ground showing but the transverse dark lines clearly visible. Hindwings also very dark.

ab. brunnea Stipan. Ent. Z. 1923. 37. p. 40.
The ground colour of all the wings, the body, antennae and legs, brown-grey, the forewing markings indistinct as in eremita Hbn. The colour agrees with that of the T. munda figure in Berge's Schmett, pl. 34. f. 7. and therefore greyish ochre-brown. The figure referred to is certainly yellowish-brown, the colour must be rare in monacha.

p.1. Malacosoma Hubner.

neustria Linnaeus. Syst. Nat.1758.Ed.10.p.500.
= quercus Esper. Eur. Schmett.1790.Forts.pt.3.p.35.pl.25.f. .
= bilineatus Haworth. Lep.Brit.1803.p.130.
= quercina de Selys. Ann.Soc.Ent.Belg.1857.1.p.55.

aberrational forms etc.

neustria Linn. typical form -- forewings yellowish with two grey lines.

ab.annularis Geoffroy in Fourcroy Ent.Paris.1785.2.p.262.
Pale coloration.The space between the ante and postmedian lines filled in with dark scales,forming a band.

ab.ochracea-confluens Tutt.Brit.Lep.1900.2.p.548.
Pale ochreous,the forewings with the two transverse lines united.
Presumably in the middle.

ab.ochracea-fracta Tutt. Brit.Lep.1900.2.p.548.
Pale ochreous,the forewings with median band broken centrally.

ab.ochracea-unicolor Tutt. Brit.Lep.1900.2.p.548.
Pale ochreous,the forewings with the lines and markings obsolete.

ab.confluens de Selys. Ann.Soc.Ent.Belg.1857.1.p.56.
= x-strigata Romaniszyn. Jts.Wien.Ent.Ver.1944.27.p.294.fig.p.295.
Yellow or buff,the forewings with the two transverse lines confluent in the middle.
x-strigata would appear to be the same form,the figure shows the two lines close together and touching each other in the middle.

ab.virgata Tutt. Brit.Lep.1900.2.p.548.
Yellow or buff,the forewings with the space between the two transverse lines darker and forming a median band.
So similar to ab. annularis Geoff.that it was unnecessary to give a name.

ab.fracta Tutt. Brit.Lep.1900.2.p.548.
Yellow or buff,the forewings with the median band broken centrally.

ab.concolor Grunberg.(nom.nov.pro unicolor Tutt.).Seit:MacroLep.1911.2.p.171.
= unicolor Tutt. (nom.preoc.Cyrilli).Brit.Lep.1900.2.p.548.
Yellow or buff,the forewings with the lines and markings obsolete.

ab.cervina Tutt. Brit.Lep.1900.2.p.548.
Pale fawn,the forewings with two distinct transverse lines.

ab.cervina-confluens Tutt. Brit.Lep.1900.2.p.548.
Pale fawn,the forewings with the two transverse lines united in the middle.

ab.cervina-virgata Tutt. (nom.nov.pro neustrius Haw.)Brit.Lep.1900.2.p.548.
= neustrius Haworth.(nec.Linnaeus.) Lep.Brit.1803.p.130.
Pale fawn,the forewings with the space between the two transverse lines darker and forming a band.

ab.cervina-fracta Tutt. Brit.Lep.1900.2.p.548.
Pale fawn,the forewings with the median band broken centrally.

ab.cervina-unicolor Tutt. Brit.Lep.1900.2.p.548.
Pale fawn,the forewings with the lines and markings obsolete.

ab.vulgaris Borkhausen. Rhein Mag.1793.1.p.368.
Reddish-ochreous,the forewings with two transverse pale yellowish lines.

ab.rufescens-confluens Tutt. Brit.Lep.1900.2.p.548.
Reddish-ochreous,the forewings with the two transverse lines united in the middle.

ab.rufescens-virgata Tutt. Brit.Lep.1900.2.p.548.
Reddish-ochreous,the forewings with the space between the two transverse lines filled in with darker,forming a median band.

ab.rufescens-fracta Tutt. Brit.Lep.1900.2.p.548.
Reddish-ochreous,the forewings with the median band broken centrally.

ab.unicolor Cyrilli. Ent.Neap.1787.p.3.pl.3.f.6.
= rufescens-unicolor Tutt. Brit.Lep.1900.2.p.548.
= unicolor Aigner. Ent.Z.1906.19.p.209. Rov.Lapok.1906.13.p.73.
Yellow-red,unicolorous.
There is some doubt about the species represented by Cyrilli's figure but most authors think it neustria.
Aigner does not state the colour of his unicolor so it is placed as a synonym here.

ab.pyri Scopoli. Ent.Carn.1763.p.199.
= cinnamomea Turati & Verity. Bull.Soc.Ent.Ital.(1911)1912.43.p.172.
Red-brown(cinnamon) with two pale stripes on the forewing.

ab.rufa-confluens Tutt. Brit.Lep.1900.2.p.549.
Deep rust-red or red-brown,the forewings with the two transverse lines united in the middle.

ab.rufa-virgata Tutt. Brit.Lep.1900.2.p.549.
Deep rust-red or red-brown,the forewings with the space between the two transverse lines darker,forming a median band.

ab.rufa-fracta Tutt. Brit.Lep.1900.2.p.549.
Deep rust-red or red-brown,the forewings with the median band broken centrally.

ab.rufa-unicolor Tutt. Brit.Lep.1900.2.p.549.
Deep rust-red or red-brown,the forewings with the lines and markings obsolete.

ab.alba Tutt. Brit.Lep.1900.2.p.549.
Absolutely white.

ab.brunnea Hammond. Proc.& Trans,Croydon Nat.Hist.& Sci.Soc.1917.8.(9).p.133.

ab.interrupta Le Charles. Amat.Pap.1926.3.p.64.pl.2.f.6.
The median band interrupted. The figure shows the band completely cut into an upper costal blotch and a very small spot on the inner margin.
The form would appear to be much more extreme than Tutt's fracta which has the median band broken centrally. No colour is tied to the form.

ab.maculifera Kolisko. Verh.zool.-bot.Ges.Wien.1908.58.p.(28).
A yellow female in which the dark transverse lines are fused into a small spot on the costa.
Even more extreme than the preceding.

ab.bicolor Sibille. Lamb.1927.27.p.74.
The basal part of the forewings straw coloured as far as the median band. The latter is brown like the external area,from which it is separated by a straw coloured shade or line.

ab.inversa Horhammer. Int.Ent.Z.1934.28.p.87. Horhammer pl.fig.7.
The opposite to the normal pattern. The basal and marginal area of the forewings dark brown,the central area or band yellow,the transverse lines rather weak. Hind-wings with broad brown margin,rather sharply divided from the yellow basal area,but without a dividing line.

ab.approximata Lempke. Tijdschr.Ent.1960.103.p.152.
The two transverse lines of the forewing are close together.

ab.contrasta Lempke. Tijdschr.Ent.1960.103.p.152.
Forewings red-brown,the hindwings very pale brown.

♀ ab.castrensioides Lempke. Beaufortia 1964.11.p.144.
Ground colour of the wings dark reddiah-brown,the yransverse lines of the forewings dardly developed. Hardly distinguishable from the dark female of M.castrensis.

ab.brevipennis Lempke. Tijdschr.Ent.1960.103.p.152.
The fore and hindwings strongly shortened.

ab.palicrina Rostagno. Bull. Soc. Zool. Ital. .series 3.1.p.294.

Hybrids.

hybrid schaufussi Standfuss. Stett.Ent.Z.1884.45.p.195.
= neustrensis Klemann. Int. Ent. Z.1927.20.p.415.
Cross between neustria ♂ and castrensis ♀.
The first of these was a cross between neustria ♂ and ♀ castrensis ab.venata, the second between neustria ♂ and normal castrensis ♀. The result does not require a separate name.

p.1. Malacosoma Hubner.

castrensis Linnaeus. Syst. Nat.1758.Ed.10.p.500.

aberrational forms etc.

castrensis Linn. typical form --- greyish-yellow(griseis),with two pale stripes.

♂ ab.pallida Tutt. Brit.Lep.1900.2.p.532.
Forewings very pale ochreous,with almost or quite obsolete transverse lines, no dark patches in cilia.Hindwings greyish-ochreous,not at all dark coppery as in the following ab.obsoleta.

♂ ab.obsoleta Tutt. Brit.Lep.1900.2.p.532.
Forewings quite yellow,with indistinct lines and markings.Hindwings coppery-brown.

♂ ab.intermedia Tutt. Brit.Lep.1900.2.p.532.
Forewings yellowish-brown,with darker lines.Hindwings coppery. Transitional to the following ab.brunnea.

♂ ab.brunnea Tutt. Brit.Lep.1900.2.p.532.
Forewings brown,approaching the coppery-brown hue of the hindwings,the lines still darker than in the preceding.

♀ ab.obsoleta Lempke. (nom.preoc. Tutt.) Tijdschr.Ent.1960.103.p.149.
= ♀ veneta Tutt.(nec. Standfuss.) Brit.Lep.1900.2.p.533.
Specimens of two colour types with feebly developed transverse lines on the upperside of the forewings,the ground colour red-brown.(veneta Stdf.is Ital.subsp

♂ & ♀ ab.hilleri Standfuss. Stett.Ent.Z.1884.45.p.194.
Unicolorous brown without the slightest trace of yellow above or below.

ab.designata Aigner. Ann.Mus.Nat.Hung.1906.4.p.519.pl.14.f.7.
All wings white,with a slight trace of ochre-brown,markingless.
The figure shows a ♂.

♂ ab.fasciata Closs. Suppl.Ent.1917.6.p.19.
The space between the two transverse lines of the forewing filled up with dark.

♀ ab.virgata Tutt. Brit.Lep.1900.2.p.533.
Fore and hindwings fawn colour,with two distinct transverse yellow fasciae on the forewings,the basal area yellow,leaving the median band and outer margin of the redder ground colour.

♀ ab. rufo-virgata Tutt. Brit. Lep. 1900. 2. p. 533.
The forewings red-brown with two distinct yellow transverse yellow fasciae, the basal yellow, leaving the median band and outer margin of the red-brown ground colour.

♀ ab. bifasciata Tutt. Brit. Lep. 1900. 2. p. 533.
Forewings red-brown with two distinct yellow fasciae

♀ ab. unicolor Tutt. Brit. Lep. 1900. 2. p. 533.
Fore and hindwings unicolous fawn.

♀ ab. taraxacoides Bellier. Ann. Soc. Ent. France. 1851. Ser. 2. 9. p. 102. pl. 4. f. 1.
All wings unicolorous very pale yellow-ochreous, the transverse lines practically absent. Head, antennae, body and legs of the same pale colour.

♂ ab. pallescens Lempke. Tijdschr. Ent. 1960. 103. p. 148.
Ground colour of the forewings whitish-yellow, the markings normal.

♂ ab. albescens Cockayne. Entom. 1951. 84. p. 243.
Thorax and ground colour of forewings whitish. Hindwings and abdomen brown without the usual ochreous or rufous tint.

♂ ab. semibrunnea Lempke. Tijdschr. Ent. 1960. 103. p. 148.
Basal and central areas of the forewings brown, marginal area yellow with the ordinary dark markings.

♂ ab. olivacea Cockayne. Entom. 1951. 84. p. 243.
Ground colour of all four wings yellowish-olive; thorax and abdomen of the same colour.

♂ ab. lineata Lempke. Tijdschr. Ent. 1960. 103. p. 148.
Of the dark markings on the upper side of the forewings only the two transverse line bordering the central area remain.

♂ ab. fusca Lempke. Tijdschr. Ent. 1960. 103. p. 148.
The dark markings of the forewings and the ground colour of the hindwings black-brown.

♂ & ♀ ab. approximata Lempke. Tijdschr. Ent. 1960. 103. p. 149.
The two transverse lines on the forewings are close together.

♂ & ♀ ab divisa Lempke. Tijdschr. Ent. 1960. 103. p. 149.
The central area of the forewings divided into a spot on the costa and one on the inner margin.

♀ ab. costipuncta Closs. Suppl. Ent. 1917. 6. p. 19. Colour pl. f. 23.
The dark central band of the forewing reduced to a triangular spot on the costa. Almost certainly would occur in ♂ also.

ab. trifasciata Closs (in error for bifasciata Tutt.) Int. Ent. Z. 1913. 7. p. 75.

ab. serena Bloch. Flora og Faun. 1959. 65. p. 36. fig.

♂ ab. minor Tutt. Brit. Lep. 1900. 1. p. 532.
Very small males, 20-25 mm.

p.1. Trichiura Stephens.

crataegi Linnaeus. Syst. Nat. 1758. Ed. 10. p. 501.
= floccosa Clerck. Icones. 1759. pl. 5. f. 1.
= vitis ideae Linnaeus. Faun. Suec. 1761. Ed. 2. p. 309.
= sylvina Fuessly. Mag. Ent. 1779. 2. p. 11. (larva)
= bicaudata Retzius. Gen. Spec. Ins. 1783. p. 36. (see Icon. 1. pl. 11.)
= mali Fabricius. Mantissa 1787. 2. p. 115.
= avellanae Fabricius. Mantissa 1787. 2. p. 116.
= pallidus Haworth. Lep. Brit. 1803. p. 105.

aberrational forms etc.

crataegi Linn. type form -- wings greyish and rounded, with obscure fascia.

ab. pallida Tutt. Brit. Lep. 1900. 2. p. 486.
♂ Whitish with darker median band. ♀ pale buff.
Under present rules the name can stand being infra-subspecific, pallidus Haworth is a synonym of the type form.

ab. defasciata Lempke. Tijdschr. Ent. 1937. 80. p. 286.
Light males without the darkened band, only the two transverse lines present.

ab. passini Boursin. Bull. Soc. Linn. Lyon. 1957. 26. p. 111.
Differs from the type form by the melanism which reaches the dark median band, which is accentuated black, and extends from the postmedian to the base leaving only a weak space of ground colour at the costa which is dirty grey. The forewing therefore appears divided into two parts, one black and one grey. Hindwings very dark, with the median band also very dark.

subsp. ariae Hubner. Samml. Eur. Schmett. 1823-24. Bombyc. pl. 69. f. 288.
Mountain race occurring in parts of Scotland. Darker, with a two year cycle instead of the normal one. The figure shows a female extremely large and dark.

p.1. Poecilocampa Stephens.

populi Linnaeus. Syst. Nat.1758.Ed.10. p.504.
= desolata Muller. Faun.Ins.Frid.1764.p.47.
= populeus Haworth. Lep.Brit.1809.p.127.

aberrational forms etc.

populi Linn. type form -- wings smoothly fuscous,with two transverse lines whitish.

ab.pallida Lempke, Beaufortia 1944.11.p.144.
Ground colour of the fore and hindwings pale grey,the basal spot on forewings pale brown.Body paler.

ab.flavescens Spuler. Schmett.Eur.1909.1.p.114.
Paler specimens with red-yellow forewings basal area and more yellowish outer area.

ab.rufescens Lempke. Tijdschr.Ent.1960.103.p.146.
The wings,body,and the blotches on the fringes are dark red-brown.

ab.nigrescens Lempke. Tijdschr. Ent.1960.103.p.146.
The basal area of the forewings,as well as the fringes,black.

ab.nigricollis Lempke. Tijdschr.Ent.1960.103.p.146.
The collar black.

ab.obsoleta Lempke. Tijdschr.Ent.1960.103.p.146.
The pale transverse lines of the forewings absent,or almost so.

ab.olivacea Warnecke. Int.Ent.Z.1918.11.p.440.
All wings and the body,above and below,are lively suffused with olive-green.

ab.fasciata Lempke. Tijdschr.Ent.1960.103.p.146.
The outer area of the forewings is as pale as the hindwings so that the black central band contrasts.

ab.albomarginata Heyne. Soc.Ent.1898.13.p.105.
= virgata Tutt. Brit.Lep.1909.4.p.467.
Forewings with the marginal area broadly whitened,the median fascia blackish,the basal area yellowish-white. Hindwings white,the basal area slightly greyish.

ab.albescens Heyne. Soc.Ent.1898.13.p.105.
Forewings rather broadly white on the outer margin,the central fascia variegated grey and blackish,the costa yellowish,the basal area yellow-brown instead of brown Hindwings pure white in the ♀,in the ♂ the veins very narrowly darkened . Underside pure white on all wings.

p.1. Eriogaster Germar.

lanestris Linnaeus. Syst. Nat. 1758. Ed. 10. p. 499.

aberrational forms etc.

lanestris Linn. type form -- wings rust-red, with white transverse line; forewings with a white spot and white at base.

ab. rufomarginata Closs. Suppl. Ent. 1917. 6. p. 19.
Male form in which the marginal area of the forewing is red-brown, without any grey, as in the female.

ab. variegata Lenz. Osthelder Schmett. Sudbayern. 1926. 2. p. 204. pl. 10. f. 17-18 (not 15-18)
Specimens with stronger pale grey dusting in the marginal area of the forewings and also in the central area, so that the whitish transverse line is often lost.

ab. grisea Tutt. Brit. Lep. 1900. 2. p. 505.
Male. Entirely dark grey, sharply marked.
Desribed as a rare aberration from Hungary which is similar to the northern subsp. borealis Caradja.

ab. nigrosuffusa Smith. Ent. Rec. 1954. 66. p. 97. pl. 3. f. 8.
Fore and hindwings with the whitish lines indistinct and the space beyond to the cilia suffused with black, the cilia itself black.

ab. obsoleta Tutt. Brit. Lep. 1900. 2. p. 502.
The central spot of the forewings absent.

ab. quadrangulata Tutt. Brit. Lep. 1900. 2. p. 502. (see Barrett pl. 87. f. 3b.)
A large white diamond-shaped spot near the costa in the middle of the forewing. The figure mentioned by Tutt shows the spot larger than the normal round one and with no white spot at the base.

ab. deleta Cockayne. (nom. nov. pro obsoleta Cockayne). Ent. Rec. 1950. 62. p. 64.
= obsoleta Cockayne. (nom. preoc. Tutt.) Ent. Rec. 1944. 56. p. 53.
On the forewings the postmedian line is absent except for faint traces at the costa where even here it is narrow and pale reddish-brown. At the base the usual white mark is only indicated by a few pale reddish-brown scales. Hindwing concolorous.

ab. radiata Perrier. Rev. Franc. Lep. 1957-58. 16. p. 41.

p.1. Lasiocampa Hubner.

quercus Linnaeus. Syst. Nat. Ed. 10. 1758. p. 498.
= familiaris Newman. Entom. 1866. 3. p. 27.

aberrational forms etc.

quercus Linn. -- type form -- wings rust coloured with yellow fascia and white spot.

♂ ab. curvata Tutt. Brit. Lep. 1902. 3. p. 55.
Ground colour reddish or ferruginous, with the yellow band narrow and curved instead the the usual almost straight one.

♂ ab. latovirgata Tutt. Brit. Lep. 1902. 3. p. 55.
Ground colour reddish or ferruginous, with broad transverse band on fore and hind-wings.

♂ ab. seminarginata Tutt. Brit. Lep. 1902. 3. p. 55.
Ground colour reddish or ferruginous, with the yellow band on the forewings normal but the band on the hindwings extending to the outer margin.

♂ ab. marginata Tutt. Brit. Lep. 1902. 3. p. 55.
Ground colour reddish or ferruginous, the yellow transverse band extending to the outer margin on both fore and hindwings.

♂ ab. basipuncta Tutt. Brit. Lep. 1902. 3. p. 55.
Ground colour reddish or ferruginous, with yellow blotch at base of forewing.

♂ ab. spartii Hubner. Samml. Eur. Schmett. 1800-03. pl. 39. f. 173.
Ground colour chestnut-brown, with narrow, almost straight yellow band on forewings and narrow band on hindwings.

♂ ab. spartii-curvata Tutt. Brit. Lep. 1902. 3. p. 56.
Ground colour chestnut-brown, with narrow, curved, yellow band on both fore and hind-wings

♀ ab. roboris F. J. A. Diel. Borkhausen Rhein Mag. 1793. 1. p. 362.
(see Esper Eur. Schmett. 3. pl. 13. f. 2.)
Ground colour brown with very broad yellow transverse band to both fore and hind-wings.
Diel was naming Esper's first race on pl. 13. The figure shows the yellow band broad becoming dilute towards the margins which are narrowly chestnut.

ab. guillemotii Trimoulet. Cat. Lep. Gironde 1858. p. 27. (Act. Soc. Linn. Bord. 1859. 24. p. 31.
The yellow band of the hindwings extending out to the margin with no reddish border therefore very wide.
The forewings are not mentioned so presumably normal. Tutt places the form with the "ground colour chestnut brown group", otherwise it would be the same as his ab. seminarginata. (see above)

♂ ab. burdigalensis Gerhard. Berl. Ent. Z. 1882. 26. p. 127.
Hindwings with a very wide yellow marginal area but with a light brown dusting just before the yellow fringes.
Very similar to the preceding which however has no dusting before the fringe.

♂ ab. spartii-marginata Tutt. Brit. Lep. 1902. 3. p. 56.
Ground colour chestnut-brown, the yellow bands of both fore and hindwings extending out to the margin.
A strange combination name, since the chief character of spartii is its narrow bands and not the colour.

♂ ab. spartii-basipuncta Tutt. Brit. Lep. 1902. 3. p. 56.
Ground colour chestnut-brown, the forewings with a yellow blotch at the base.

♂ ab. purpurascens Tutt. Brit. Lep. 1902. 3. p. 56
Ground colour deep purplish or chocolate-brown, with narrow, almost straight oblique yellow transverse bands on forewings, and narrow bands on hindwings.

♂ ab. purpurascens-curvata Tutt. Brit. Lep. 1902. 3. p. 56.
Ground colour deep purplish or chocolate-brown, with narrow, curved, yellow transverse band on fore and hindwings.

♂ ab. purpurascens-latovirgata Tutt. Brit. Lep. 1902. 3. p. 56.
Ground colour deep purplish or chocolate-brown, with broad transverse yellow band on both fore and hindwings.

♂ ab. purpurascens-semimarginata Tutt. Brit. Lep. 1902. 3. p. 56.
Ground colour deep purplish or chocolate-brown, with normal yellow transverse band o on forewing but the band on hindwing extending to outer margin.

♂ ab. purpurascens-marginata Tutt. Brit. Lep. 1902. 3. p. 56.
Ground colour deep purplish or chocolate-brown, with the yellow transverse band on both fore and hindwing extending to the outer margin.

♂ ab. purpurascens-basipuncta Tutt. Brit. Lep. 1902. 3. p. 56.
Ground colour deep purplish or chocolate-brown, with yellow blotch at base of forewi

♂ ab. brunnea Tutt. Brit. Lep. 1902. 3. p. 56.
= brunnea Lambillion (? nom. nud.) Cat. Lep. Belg. 1900. p. 11.
Ground colour russet-brown, with narrow, almost straight, oblique yellow band on forewings, and narrow band on hindwings.

ab. callunae Palmer. Zool. 1847. 5. p. 1656.
North England and Scotland, two year life-cycle. The ♂ usually darker brown than the type form with the yellow transverse bands narrower, especially on hindwing; the forewings show a yellow blotch at the base but this character is sometimes foun in quercus.

♀ ab.obsoleta Tutt. Brit.Lep.1902.3.p.56.
Ground colour unicolorous yellow or yellow-ochreous,with no transverse markings.

♀ ab.virgata Tutt. Brit.Lep.1902.3.p.56.
Ground colour yellow or yellow-ochreous,with a pale transverse band crossing fore and hindwings.

♀ ab.semimarginata Tutt. Brit.Lep.1902.3.p.56.
Ground colour yellow or yellow-ochreous,with the outer area of the hindwing paler to the margin.

♀ ab.marginata Tutt. Brit.Lep.1902.3.p.56.
Yellow or yellow-ochreous,with the outer area of both fore and hindwing paler to the margin.

♀ ab.ochracea-obsoleta Tutt. Brit.Lep.1902.3.p.56.
Unicolorous dull ochreous,with no transverse markings.

♀ ab.ochracea-virgata Tutt. Brit.Lep.1902.3.p.56.
Dull ochreous,with a pale transverse band crossing both fore and hindwing.

♀ ab.ochracea-semimarginata Tutt. Brit.Lep.1902.3.p.56.
Dull ochreous,with the outer area of the hindwing paler to the margin.

♀ ab.ochracea-marginata Tutt. Brit.Lep.1902.3.p.56
Dull ochreous,with the outer area of both fore and hindwing paler to the margin.

♀ ab.rufescens-obsoleta Tutt. Brit.Lep.1902.3.p.56.
Unicolorous ochreous,faintly reddish,with no transverse markings.

♀ ab.rufescens-virgata Tutt. Brit.Lep.1902.3.p.56.
Ochreous,faintly reddish,with a pale transverse band crossing both fore and hindwing.

♀ ab.rufescens-semimarginata Tutt. Brit.Lep.1902.3.p.56.
Ochreous,faintly reddish,with the outer area of the hindwing paler to the margin.

♀ ab.rufescens-marginata Tutt. Brit.Lep.1902.3.p.56.
Ochreous,faintly reddish,with the outer area of both fore and hindwing paler to the margin.

♀ ab.brunnea-obsoleta Tutt. Brit.Lep.1902.3.p.56.
Unicolorous brownish,approaching somewhat the colour of the male,with no transverse marking.

♀ ab.brunnea-virgata Tutt. Brit.Lep.1902.3.p.57.
Ground colour brownish , with a pale transverse band crossing fore and hindwing.

♀ ab.brunnea-seminarginata Tutt. Brit.Lep.1902.3.p.57.
Brownish,with the outer area of the hindwing paler to the margin.

♀ ab.brunnea-marginata Tutt. Brit.Lep.1902.3.p.57.
Brownish,with the outer area of both fore and hindwing paler to the margin.

♀ ab.ferruginea Lambillion. Cat.Lep.Belg.1900.p.11.
Ground colour ferruginous.

♀ ab.lurida Cockayne. Entom.1951.84.p.245.
Ground colour fulvous,overlaid with smoky-olive; the fascia is darker and of a greyish colour and the discoidal spot is white with no dark ring round it. The thorax and abdomen are of the same colour as the wings.

♀ ab.spadicea Wagner. Sts.Ost.Ent.Ver.1926.11.p.25.
Female with almost ♂ coloration and differs strikingly from the darkest females of ab.brunnea Tutt.

♀ ab.hastifera Stauder. Ent.Anz.1925.5.p.56.
Female with the singular dark ground colour interrupted from the base to the fringes on all the veins by yellow striation,the wings therefore appear to be divided up in-to a number of uniform areas.

ab.olivaceo-fasciata Cockerell. Entom.1889.22.p.5.(see vol.11.p.103)
Olive-banded instead of the normal yellow.

ab.olivacea Tutt. Brit.Lep.1904.3.p.87.
= infumata Spuler. Schmett.Eur.1903.1.p.118.
= paradoxa Frings. Soc.Ent.1905.20.p.89.
The whole of the wings suffused with greenish,not merely the transverse bands. Spuler's infumata had the bands grey-yellow-green instead of yellow and the females were smoke-brown..
Frings olivacea had the male blackish violet-brown,smoky-black suffused,the yellow bands and fringes greenish-grey-black. The female uniform dull smoky-brown,the bands dark green-grey.

ab.poveyi Smith. Entom.1954.87.p.228.pl.5.f.2 & 4. (plate numbers transposed)
ings strongly rounded and of olivaceo-fasciata colour.

ab.semifasciata Wagner. Int.Ent.Z.1919.13.p.177.pl.f.1.
= semi-obsoleta Smith. Rep.& Proc.Chester Soc. Lit.Sci.Lit.& Art.1947.p.71.
♂. The yellow transverse band of the forewing is vague or washed-out,that of the hindwing completely absent.
Smith's semi-obsoleta had the yellow band of forewing almost absent,narrowed to 1 mm.at its widest,hindwings without any band.

ab.defasciata Bytinski-Salz. Ent.Rec.1939.51.p.165.
♂ Forewing normal.Hindwing with the postmedian band completely absent, the marginal area only slightly paler yellow.
Very similar to the preceding but can be separated if desired by the forewing band being normal,in the preceding it is washed out or only slightly indicated by a very narrow band.

ab.bifasciata Bytinski-Salz. Ent.Rec.1939.51.p.165.
♀. The transverse band of the forewing very broad and divided by a band of the ground colour which gives the impression of two parallel postmedian lines.

ab.fasciarecedens Lempke. Tijdschr.Ent.1960.103.p.159, pl.14, f.8.
The yellow band on the forewing is displaced in the direction of the base so that it runs close to the discoidal spot.Hindwings similar.

ab.morleyi Cockayne. Entom.1951.84.p.243.pl.5.f.10.
♂. The normal fascia on the forewing is replaced by a broad,ill-defined,ochreous band bounded on its inner aspect by the discoidal spot and fading away near the termen. On the hindwing the fascia is absent.

♂ ab.feminicolorata Cockayne. Ent.Rec.1945.57.p.28.
The wings,and all other parts,which in the normal male are dark brown,are ochreous as in the normal female; the transverse bands are paler and yellower,the discal spot is white,the antennae brown.

ab.feminicolorata Wiepelt. Ent.Z.1907.21.p.107.
Name has no standing since it was based on artificially produced specimens.
Wiepelt withdrew the name in Int.Ent.Z.1911.5.p.186.

ab.fenestrata Gerhard. Berl.Ent.Z.1882.26.p.128.
The yellow band on both wings,which extends from the middle,is effaced and the whole surface appears transparent.
The form is probably pathological,sparse scaling can often result from diseased larvae.

ab.macropuncta Lempke. Tijdschr.Ent.1960.103.p.159.
On the forewing a strikingly enlarged white discal spot.

ab.caecopuncta Rebel. Verh.zool.-bot.Ges.Wien.1914.64.p.(177).
On the forewing the central spot is black instead of white.

ab.brevipennis Smith. Entom.1954.87.p.228.pl.4.f.4.(plate numbers transposed)
♂ and ♀.Of normal colour,with rounded wings(as in ab.novesyi Smith which,however, is also of the olivaceo-fasciata colour.)

ab.pusilla Dormall. Rev.Mens.Soc.Ent.Nam.1910.10.p.2.
Small, 45 mm.
The other characters, colour etc, would appear to be of no account.

hybrid.wagneri Tutt. Brit.Lep.1906.5.p.29.
♂ quercus ✕ ♀ trifolii.
Bred by Wagner,only one ♀ resulting.

p.1. Lasiocampa Hubner.

trifolii Schiffermuller. Wien Verz.1775.p.57.
= dumeti Huessly. Schweiz Ins.1775.p.34.
= onobrichis Gladbach. Nam.u Preissverz s.p.1778. (not checked)

aberrational forms etc.

trifolii Schiff. ♂type form -- generally accepted as the red-brown form figured by Esper. This shows a postmedian line of a paler colour than the ground,and a basal, inconspicuous,line which starts at the costa and curves into the root of the wing. ♀ not so dark a brown.

ab.obsoleta-flava Tutt. Brit.Lep.1902.3.p.10.& 11.
All wings unicolorous yellow or yellow-ochreous,absolutely without any markings. The white spot of the forewing is not edged with darker.

ab.albinos Nageli. Mitt. Schweiz Ent. Ges.1896.9.p.333.
A pale ochre coloured,markingless ♀ in which also the white spot of the forewing fails.

ab.pallida-flava Tutt. Brit.Lep.1902.3.p.10.
Pale yellow orwhitish-ochreous,with the transverse lines including a more or less undefined median band,the central white spot clearly defined. Hindwing grey,often with a slight pinkish tinge. Females inclining to fawn rather than buff.

subsp flava Chalmers-Hunt Entom. 1962. 74 suppl. (22) Raised to subspecies status
=ab.flava Tutt. Brit.Lep.1902.3.p.10.
= mitfordi Oberthur. Lep.Comp.1917.13.p.40.pl.426.f.3622-23.(nom.nud.in vol.12.p.339
Distinct yellow males and females with two well-developed,pale edged,darker transver lines developing into a moderate band in some examples. Hindwing usually with a slight reddish tinge.

ab.contracta-flava Tutt. Brit.Lep.1902.3.p.11.
Yellow,with the transverse median band contracted and broken(in one example restrict -ed to a small semicircular costal patch that just includes the white central spot)

ab.cervina Tutt. Brit.Lep.1902.3.p.11.
Pale reddish-grey with distinct transverse lines,more or less developed median band and reddish-brown hindwing.

ab.obsoleta-cervina Tutt. Brit.Lep.1902.3.p.11.
All wings unicolorous reddish-grey,without any markings.

ab.contracta-cervina Tutt. Brit.Lep.1902.3.p.11.
Pale reddish-grey,with the transverse band contracted.

ab.unilinea-typica Tutt. Brit.Lep.1902.3.p.12.
Red-brown,with the basal line of the forewings obsolete in both sexes.
Tutt assumed that the type form had two lines,other authors only the one postmedian, we therefore have the present form named for its one line and ab.bilinea Hartig named for two.

ab. bilinea Hartig. Ent. Rundsch. 1924. 41. p. 45.
= basigramma Lenz. Osthelder Schmett. Sudbayern. 1926. 1. p. 207. pl. 10. f. 33.
Apart from the dark ground colour runs a band in the basal area of the forewing. Lenz basigramma the usual pale transverse band clearly developed and a second paler band in the basal area. The figure shows a dark, presumably red-brown example with the postmedian and basal lines prominently pale.

ab. suffusa-typica Tutt. Brit. Lep. 1902. 3. p. 12.
Red-brown, with ill-defined transverse bands but well-marked pale longitudinal nervures.

ab. rufa Tutt. Brit. Lep. 1902. 3. p. 12.
Bright foxy-red-brown, with conspicuous transverse lines and more or less well developed median band.

ab. obsoleta-rufa Tutt. Brit. Lep. 1902. 3. p. 12.
All wings unicolorous uniform bright foxy red-brown with the markings obsolete.

ab. contracta-rufa Tutt. Brit. Lep. 1902. 3. p. 12.
Bright foxy red-brown, with the median band contracted.

ab. daddi Heinrich. Dtsch. Ent. Z. 1923. Beitr. p. 71.
Ground colour red-brown. Hindwings showing a sharply developed pale yellow ante-marginal band as on the forewings, the marginal area outside this band being paler than the ground colour.

ab. ochracea Hartig. Ent. Rundsch. 1924. 41. p. 45.
Ground colour of the forewing reddish yellow-brown, the white spot large, the outer band narrower. Described from a single ♂.

ab. rufo-linea Tutt. Brit. Lep. 1902. 3. p. 12.
♀ Fawn-grey, with red transverse lines, the outer edged externally with paler, and with a pale basal patch.

ab. flavilinea Lempke. Tijdschr. Ent. 1960. 103. p. 154.
♂ with the pale transverse lines on the forewings of a clear yellow colour.

ab. macrocellata Lempke. Tijdschr. Ent. 1960. 103. p. 154.
The discal spot of the forewings strikingly enlarged.

ab. lutzernowi Chneour. Bull. Soc. Hist. Nat. Africa Nord. 1942. 33. p. 52. pl. 4. f. 4.
= longomaculata Lempke. Tijdschr. Ent. 1960. 103. p. 155.
The white discal spot elongated. Described from single ♀.
Lempke's longomaculata had the discal spot lengthened pointed towards the base.

ab. sagitta Lempke. Tijdschr. Ent. 1960. 103. p. 155.
The discal spot of the forewing is situated at the end of a dark red-brown, wedge-shaped spot

ab.cingulata Lempke. Tijdschr.Ent.1960.103.p.155
The discal spot of the forewings is completelyfilled with the ground colour,only the dark outline of it is visible.

ab.unilinea-rufa Curtis. Journ.Soc.Brit.Ent. .2.p.173.

ab.minor Tutt. Brit.Lep.1902.3.p.14.
Extremely small,only 36 mm.expanse.

p.1.

Macrothylacia Rambur.

rubi Linnaeus. Syst.Nat.1758.Ed.10.p.498.

aberrational forms etc.

rubi Linn. type form -- greyish,with two white stripes on upperside of forewings. Presumably the ♀.

♂ab.rufa Tutt. Brit.Lep.1902.3.p.128.
Ground colour bright fox-red.

♂ ab.rufa-separata Tutt. Brit.Lep.1902.3.p.127.
Ground colour bright fox-red,the transverse lines of the forewing widely separated.

♂ ab.rufa-approximata Tutt.Brit.Lep.1902.3.p.128.
Bright fox-red,with approximating transverse lines on the forewing.

♂ ab.rufa-conjuncta Tutt.Brit.Lep.1902.3.p.128.
Bright fox-red,with the transverse lines of the forewing touching.

♂ ab.rufa-fasciata Tutt. Brit.Lep.1902.3.p.128.
Bright fox-red,with the transverse lines of the forewing uniting to form a pale median fascia.

♂ ab.rufa-unilinea Tutt. Brit.Lep.1902.3.p.128.
Bright fox-red.with one of the transverse lines of the forewing absent.

♂ ab.rufa-obsoleta Tutt. Brit.Lep.1902.3.p.128.
Bright fox-red with both transverse lines absent on the forewing.

♂ ab.rufa-dissimilis Tutt. Brit.Lep.1902.3.p.128.
Bright fox-red,with the transverse lines different on the right and left forewings.

♂ ab.rufa-virgata Tutt. Brit.Lep.1902.3.p.128.
Bright fox-red,with with the area between the two transverse lines darker than the ground colour.

♂ ab.ferruginea Tutt. Brit.Lep.1902.3.p.128.
Ground colour duller rust red,with the transverse lines of the forewing normal.

♂ ab.ferruginea-separata Tutt. Brit.Lep.1902.3.p.128.
Duller rust-red,with the transverse lines of the forewing widely separated.

♂ ab.ferruginea-approximata Tutt. Brit.Lep.1902.3.p.128.
Duller rust-red,the transverse lines of the forewing approximating.

♂ ab.ferruginea-conjuncta Tutt. Brit.Lep.1902.3.p.128.
Duller rust-red,with the transverse lines of the forewing touching.

♂ ab.ferruginea-fasciata Tutt. Brit.Lep.1902.3.p.128.
Duller rust-red,with the transverse lines of the forewing uniting to form a pale median fascia.

♂ ab.ferruginea-unilinea Tutt. Brit.Lep.1902.3.p.128.
Duller rust-red,with one of the transverse lines of the forewing absent.

♂ ab.ferruginea-obsoleta Tutt. Brit.Lep.1902.3.p.128.
Duller rust-red,with the transverse lines of the forewing absent.

♂ ab.ferruginea-dissimilis Tutt.Brit.Lep.1902.3.p.128.
Duller rust-red,with the transverse lines different on the right and left forewings.

♂ ab.ferruginea-virgata Tutt. Brit.Lep.1902.3.p.128.
Duller rust-red,with the area between the two transverse lines darker than the ground colour.

♂ ab.pallida Tutt. Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the pale antemarginal shade),with the transverse lines normal.

♂ ab.pallida-separata Tutt. Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the antemarginal shade),with the transverse lines of the forewing widely separated.

♂ ab.pallida-approximata Tutt.Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the pale antemarginal shade),with the transverse lines of the forewing approximating.

♂ ab.pallida-conjuncta Tutt.Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the pale antemarginal shade),with the transverse lines of the forewing touching.

♂ ab.pallida-fasciata Tutt. Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the pale antemarginal shade),with the transverse lines of the forewing uniting to form a pale median fascia.

♂ ab.pallida-unilinea Tutt. Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the pale antemarginal shade),with one of the transverse lines of the forewing absent.

♂ ab.pallida-obsoleta Tutt. Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the pale antemarginal shade),with the transverse lines of the forewing absent.

♂ ab.pallida-dissimilis Tutt. Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the pale antemarginal shade), with the transverse lines different on the right and left forewings.

♂ ab.pallida-virgata Tutt. Brit.Lep.1902.3.p.128.
Ground colour pale reddish(the tint of the pale antemarginal shade),with the area between the two transverse lines of the forewing darker than the ground colour.

♀ ab.grisea Tutt. Brit.Lep.1902.3.p.128.
Ground colour grey without any reddish tint,the transverse lines of the forewing normal.

♀ ab.grisea-separata Tutt. Brit.Lep.1902.3.p.128.
Ground colour grey without any reddish tint,the transverse lines of the forewing widely separated.

♀ ab.grisea-approximata Tutt. Brit.Lep.1902.3.p.128.
Ground colour grey without any reddish tint,with the transverse lines of the forewing approximating.

♀ ab.grisea-conjuncta Tutt. Brit.Lep.1902.3.p.128.
Ground colour grey without any reddish tint,the transverse lines of the forewing touching.

♀ ab.grisea-fasciata Tutt. Brit.Lep.1902.3.p.128.
Ground colour grey without any reddish tint,with the transverse lines of the forewing uniting to form a pale median fascia.

♀ ab.grisea-unilinea Tutt. Brit.Lep.1902.3.p.128.
Ground colour grey without any reddish tint,with one of the transverse lines of the forewing absent.

♀ ab. grisea-obsoleta Tutt. Brit.Lep.1902.3.p.128.
= pallida Thierry-Mieg.(nom.preoc. Tutt.) Ann.Soc.E.Belg.1910.54.p.386.
(fig.Milliere Icon.pl.94.f.7.)
Ground colour grey without any reddish tint,with both transverse lines of the forewing obsolete.
Thierry-Mieg named the figure in Milliere,Icon pl.94.f.7. which shows a pale greyish-white female with no markings,it is probably more extreme than Tutt's specimens but hardly worth separating as a different form.

♀ ab.grisea-dissimilis Tutt. Brit.Lep.1902.3.p.128.
Ground colour grey without any reddish tint,with the transverse lines differnt on the right and left forewings.

♀ ab.grisea-virgata Tutt. Brit.Lep.1902.3.p.129.
Ground colour grey without any reddish tint,with the area between the two transverse lines of the forewing darker than the ground.

♀ ab.cervina-separata Tutt. Brit.Lep.1902.3.p.129.
Ground colour pale reddish-grey,the transverse lines of the forewing widely separate

♀ ab.cervina-approximata Tutt. Brit.Lep.1902.3.p.129.
Ground colour pale reddish-grey,with the transverse lines of the forewing approximating.

♀ ab.cervina-conjuncta Tutt. Brit.Lep.1902.3.p.129.
Ground colour pale reddish-grey,with the transverse lines of the forewing touching.

♀ ab.cervina-fasciata Tutt. Brit.Lep.1902.3.p.129.
Ground colour pale reddish-grey,with the transverse lines of the forewing uniting to form a pale median fascia.

♀ ab.cervina-unilinea Tutt. Brit.Lep.1902.3.p.129.
Ground colour pale reddish-grey,with one transverse line absent on the forewing.

♀ ab.cervina-obsoleta Tutt. Brit.Lep.1902.3.p.129.
Ground colour pale reddish-grey,with both transverse lines of the forewing absent.

♀ ab.cervina-dissimilis Tutt.Brit.Lep.1902.3.p.129.
Ground colour pale reddish-grey,with the transverse lines different on the right and left forewings.

♀ ab.cervina-virgata Tutt. Brit.Lep.1902.3.p.129.
Ground colour pale reddish-grey,with the area between the two transverse lines of the forewing darker than the ground colour.

ab.pallidior Cockayne. Entom.1951.84.p.243.(nom.nov.pro pallida Lenz.)
= pallida Lenz. (nom.preoc.Tutt.) Osthelder Schnett.Südbayern.1926.1.p.208.pl.10f.24.
♀. Pale grey,the transverse lines merging into the ground and tending to disappear. The figure shows the transverse lines somewhat washed out,especially the postmedian, but they are still distinctly visible.

♀ ab.transfuga Krulikowsky. Soc.Ent.1908.23.p.11.
Female with light red-brown coloration of the male.

♀ ab.beyeri Linstow. Int.Ent.Z.1911.4.p.290.
Melanistic female,grey-black on body and wings,the transverse lines only showing in a lighter tone.

ab.nygnaea Reuter. Act.Soc.F.Fenn.1893.9.p.28.
Very small and dusky,the transverse lines weak and close together.
The main character would appear to be the small size.

♂ ab.basigrisea Lempke. Tijdschr.Ent.1960.103.p.162.
The thorax and base of the forewings greyish.

♂ ab.brunnea Lempke. Tijdschr.Ent.1937.80.p.293.
The ground colour brown to yellow-brown,without any red tint.

♀ ab.bicolor Lempke. Tijdschr.Ent.1960.103.p.163.
Ground colour of the wings and body normal dark brown-grey,the whole basal area of the forewings pale,sharply contrasting,the same as the second transverse line.

ab.monogrammica Cockayne. Entom.1951.84.p.243.
On the forewing the antemedian line is present,but the postmedian is absent. Cockayne states that in ab.unilinea Tutt,the postmedian is present and the antemedian absent.This is based on Tutt's remark that Stephen's var. had only the outer line present and was therefore his unilinea. Tutt's description however, implies that either line can be absent.

ab.brevipennis Cockayne. Entom.1951.84.p.244.pl.5.f.5.
Both fore and hindwings abnormally broad and short.

♀ ab.albicans Cockayne. Entom.1951.84.p.244.
Head,antennae,thorax,legs,abdomen and wings very pale reddish-brown. The markings on the wings all present but very faint.

p.1. Philudoria Kirby.

potatoria Linnaeus. Syst. Nat.1758.Ed.10.p.498.
= ♂ intermedia Tutt. Brit.Lep.1902.3.p.162.

aberrational forms etc.

potatoria Linn. type form -- ♀ yellow,the forewings with ferruginous oblique stripe and two whitish spots.
Tutt was wrong in assuming that the male was also yellow.His ab.intermedia is the male of potatoria Linn.

ab.obsoleta-potatoria Tutt. Brit.Lep.1902.3.p.162.
Yellow,with obsolete transverse lines.
Tutt's actual description can only apply to the female but since he thought the type male was also yellow it is obvious he meant the name to apply to both sexes.

ab.proxima Tutt. Brit.Lep.1902.3.p.162.
Yellow or orange-yellow with reddish or buff shading at base of costa,forming a roughly triangular blotch,the oblique line and subterminal of the same shade.Hind-wings buff with rather darker transverse line.
Said to occur in both ♂ and ♀ sex,but I have not seen ♀♀.

ab.diminuta Tutt. Brit.Lep.1902.3.p.163.
Forewings deep red-brown or chocolate-brown,except for an oblong yellowish basal patch,havings its base along the thorax,one side along the inner margin,and the edge opposite the base formed by the lower portion of the oblique line near the base of the wing; a second small patch of yellow runs from the lower discoidal to the oblique line and extends slightly across the latter towards the subterminal. Hindwings uniformly red-brown.
Said to occur in both sexes.

ab.extrema Tutt. Brit.Lep.1902.3.p.162.
= ♀ ab.inversa Caradja. Iris 1895.8.p.93.(footnote description.)
= ♀ ab.burdigalensis Manon. Proc.Verb.Soc.Linn.Bordeaux.1922.74.p.162.
Forewings almost uniform red-brown or chocolate-brown with a purplish gloss,the oblique line still darker,the subterminal almost lost in the ground colour,the lower discoidal distinct,the base of the inner margin scarcely paler than the ground colour. Hindwings unicolorous purplish red-brown.
The female of Caradja's inversa is the same form,his male,which was described first and so has priority,has nothing to do with the dark female.
Manon's burdigalensis was also a dark brown female and so becomes a synonym as regards its ground colour,his male however can stand as a form with one of the discoidal spots absent.

♀ ab.brunnea Thierry-Mieg. Le Nat.1910.32.p.46.
Darker than the type form,of a pale hazel-nut brown,interspersed here and there with yellowish,especially on the forewings.
Some authors treat this as a synonym of extrema Tutt but it would appear to be lighter and colour and more variegated.

ab. obsoleta-extrema Tutt. Brit. Lep. 1902. 3. p. 163.
Deep red-brown or chocolate-brown as in ab. extrema but with the transverse lines obsolete.

♀ ab. grisescens Mezger. Lamb. 1933. 33. p. 11.
The original description says greyish or grey-brownish.
Lempke who has seen the two specimens mentioned by Mezger says that they belong to the pale pallida Spuler form but each has the wings covered with a brownish tint, in one rather feeble, in the other very distinct.

♀ ab. suffusa Closs. Int. Ent. Z. 1917. 11. p. 165.
Wings suffused with dull brownish.

♀ ab. obscura Closs. Int. Ent. Z. 1920. 14. p. 122.
Brown-grey with pale yellow basal patch on forewings. Hindwings dark grey. All the markings very sharp.

♀ ab. sordidula Cockayne. Entom. 1951. 84. p. 245.
Thorax, abdomen and wings pale dull drab; markings not strongly emphasised.

♀ ab. uniformis Cockayne. Entom. 1951. 84. p. 245.
Thorax abdomen and wings dull brown; markings not strongly emphasised, the reniform and the white spot above it obsolescent.

♂ ab. inversa Caradja. Iris 1895. 8. p. 93. (footnote description).
= berolinensis Heyne. Soc. Ent. 1899. 14. p. 3.
= feminalis Grunberg. Seitz Macro-Lep. 1911. 2. p. 164. pl. 26 row g.
Male pale yellow, as in the normal female.
Caradja's female did not belong to this male, see extrema Tutt on p. 1 of these notes.
Heyne's berolinensis was a male with the pale yellow coloration of the typical female
Grunberg's feminalis was a male with the coloration of the normal female, the wings very pale yellow.
Sharps breeding experiments have proved that the females of this form are also yellow

♂ ab. obsoleta-berolinensis Tutt. Brit. Lep. 1902. 3. p. 162.
= obsoleta-atrinerva Mezger. Lamb. 1933. 33. p. 10.
Pale greyish or whitish-ochreous, unicolorous, without the normal transverse lines.
Mezger's obsoleta-atrinerva were males without any markings and of yellow ground.

ab. lutescens Tutt. Brit. Lep. 1902. 3. p. 162.
= ♀ aurantiaca Mezger. Lamb. 1933. 33. p. 12.
= ♀ aurantior Lempke. Tijdschr. Ent. 1960. 103. p. 169.
♂ and ♀. Deep yellow or orange-yellow, with normal transverse lines.
Mezger's aurantiaca was a female with fore and hindwings orange.
Lempke's aurantior has the ground colour of the wings deep orange-yellow, the forewings with strongly developed transverse lines, hindwings as a rule with a broad diffuse brownish central band.
Lempke states that the ♀ of Tutt's lutescens is of a different form from the ♂ and names it aurantior. I cannot see how a line can be drawn between the same sexes to have a series of both ♂ and ♀ bred by Sharp from Cambridgeshire which fit Tutt's description. Lempke uses the name "flavescens Tutt" in error for lutescens Tutt in his explanation of the name aurantior.

ab. unimacula Voltin. Ts. ion. Ent. Ver. 1942. 27. p. 36.
The second small spot, above the central spot of the forewing, is absent.

ab. burdigalensis Lanon. Proc. Verb. Soc. Linn. Bordeaux. 1942. 74. p. 162.
♂ with the "headlight" spot of the forewing absent.
This presumably is the main discoidal spot, the small spot above it being present.
The name can only stand for this male with discoidal spot absent, the female which is dark brown and is a synonym of extrema Tutt.

ab. crucistrigata Lumma. Ent. L. 1938. 52. p. 91. fig. p. 92. f. 1.
The main character is the position of the dark transverse lines of the forewings which normally have a wide intervening space between them. In this ab they cross each other above the inner margin. The example is deep chocolate-brown without the normal straw coloured streaks.
The description is not good, the lines do not "cross" but meet above the inner margin and then separate again, forming a cross. It is the form which Lemke calls "tangens".

p.1. Gastropacha Ochsenheimer.

quercifolia Linnaeus. Syst. Nat. 1758. Ed. 10. p. 497.
= dentata Scopoli. Introd. Nat. Hist. 1777. p. 416.

aberrational forms etc.

quercifolia Linn. type form -- Wings dentate, ferruginous, hindmargin black.

ab. pallida Spuler. Schmett. Eur. 1903. 1. p. 122.
♀♀ with pallid yellow red-grey coloration, hardly marked.

ab. ulmifolia Heuacker. Stett. Ent. Z. 1873. 34. p. 244.
Light yellowish-grey.

ab. ulmifolia-obsoleta Tutt. Brit. Lep. 1902. 3. p. 204.
Ochreous, without, or with ill-developed, transverse lines.

ab. suffusa Tutt. Brit. Lep. 1902. 3. p. 205.
Dull ferruginous, shaded with grey especially at base and along costa of forewings, suggesting a greenish tinge, more purplish on outer area of all wings, often with a pale yellowish or orange marginal line and cilia; the transverse lines well developed.

ab. suffusa-obsoleta Tutt. Brit. Lep. 1902. 3. p. 205.
Dull ferruginous, without transverse lines or almost so.

ab. purpurascens Tutt. Brit. Lep. 1902. 3. p. 205.
Deep purple, scaled heavily with black, but with well-developed transverse lines.

ab. purpurascens-obsoleta Tutt. Brit. Lep. 1902. 3. p. 205.
Deep purple, scaled heavily with black, the transverse lines ill-developed.

ab. obsoleta Lempke. Tijdschr. Ent. 1960. 103. p. 173.
Ground colour as in the type form, rust-red, but the transverse lines absent or nearly so. This is the form which Tutt called ab. dalmatina but dalmatina is a subspecies and cannot be treated as an aberration occurring in Britain.

ab. alnifolia Ochsenheimer. Schmett. Eur. 1810. 2. (3). p. 250.
The ground colour dark copper-brown, on the costa black as far as the middle, on the outer margin bluish, on the inner margin rust-brown. Hindwings rust-brown on costa, the central part blackish, outer margin bluish tinged.

ab. flavilimbata Warnecke. Mts. Wien. Ent. Ges. 1943. 28. p. 16.
Dark ground colour with continuous pale red-yellow fringes and marginal area to all wings, contrasting strikingly with the ground.

ab. luteobasalis Hiepelt. Int. Ent. Z. 1931. 25. p. 301.
Wings dark coloured with a violet shimmer, the transverse lines well-developed. On the hindwings the area from the base to the centre of the wing is of a lively orange colour, sharply divided from the dark discal transverse stripe.

ab. juncta Lempke. Tijdschr. Ent. 1960. 103. p. 174.
The two transverse lines bordering the central area of the forewing touch each other at the inner margin.

ab. tangens Lempke. Tijdschr. Ent. 1960. 103. p. 173-4.
The two transverse lines bordering the central area of the forewings touch each other below the centre of the wing and then separate again.

ab. incompleta Tutt. Brit. Lep. 1902. 3. p. 204.
An example in which the hindwings had a semicircular concavity, as if a piece had been taken out of the anal angle of each hindwing.

ab. major Tutt. Brit. Lep. 1902. 3. p. 204.
Very large specimens, measuring 100-120 mm.

gen. 11. hoegi Heuacker. Stett. Ent. Z. 1873. 34. p. 244. (hoegei)
Specimens of a second generation, the chief character being their extraordinarily small size.

p.1. Endromis Ochsenheimer.

versicolora Linnaeus, Syst. Nat. 1758. Ed. 10. p. 499.
= versicoloria Linnaeus, Syst. Nat. 1760. Ed. 11. p. 499.
= versicolor Linnaeus, Faun. Suec. 1761. p. 294.

aberrational forms etc.

versicolora Linn. type form -- wings brownish(griseis), stripes black and white, front of thorax white, forewings with three white spots, hindwings with diaphanous spot at apex.

♂ ab. pallida Tutt. Brit. Lep. 1902. 3. p. 239.
Forewings pale orange-brown, with distinct transverse lines, the pale margins not pure white, the median area paler and greyer. Hindwings orange-brown with distinct markings and whitish apical spots.
Tutt describes the type form as deep orange-brown on forewings, bright orange-brown on the following page.

♂ ab. ab. pallida-obsoleta Tutt. Brit. Lep. 1902. 3. p. 239.
As the preceding, with pale orange-brown forewings but ill-developed or obsolete markings on the hindwings.

♂ ab. obsoleta Tutt. Brit. Lep. 1902. 3. p. 240.
Like the type form, with bright orange-brown forewings and orange hindwings with distinct markings but the transverse markings of the hindwings ill-developed or obsolete.

♂ ab. clara Tutt. Brit. Lep. 1902. 3. p. 240.
Forewings deep fuscous brown, the basal tuft quite white; transverse lines exceptionally dark, contrasting strongly with their white edges with the pale median shades,, and pale arches of the subterminal, and the white apical spots. Hindwings deep orange-brown, median line & external transverse shade strongly marked, the apical spots pure white; the outer margin dark shaded with pale nervures.

♂ ab. obscura Tutt. Brit. Lep. 1902. 3. p. 240.
Forewings dull ochreous-brown, the paler markings suffused with ochreous, apical spots white. Hindwings dull ochreous, dark marginal markings also dull, apical spots entirely lost in the ground colour.

♂ ab. obscura-obsoleta Tutt. Brit. Lep. 1902. 3. p. 240.
As the preceding with the forewings dull ochreous-brown and hindwings dull ochreous but with the markings of the hindwings ill-developed or obsolete.

♂ ab. rufescens Lempke. Tijdschr. Ent. 1960. 103. p. 177.
Ground colour red-brown.

♀ ab. fusca Lempke. Tijdschr. Ent. 1960. 103. p. 177. pl. 16. f. 3.
Ground colour dark brown, the light markings on fore and hindwings normal but sharply contrasting.

ab.lapponica Bau. Stett.Ent.Z.1877.38.p.512.
= diabolica Niepelt. Int.Ent.Z.1931.25.p.83.(fig.on p.145).
Forewings dark smoky-brown with an amount of black, the white markings of the type are usually only just indicated, sometimes entirely absent. Hindwings dirty red-brown with darker bands. Female with the forewings pale drab-brown with an amount of black, the white portions with a weak tinge of brown. The white on the thorax is mixed with brown.
Niepelt's diabolica, by the figure, is obviously the same form. The description says the ground colour of all wings sooty nut-brown, the transverse lines present in weak black, the white spots of the apex darkened with grey. Thorax black-brown haired.

ab.illineata Schultz. Nyt.Mag.1905.43.p.115.
The dark postmedian line of the forewings is completely absent.

ab.atava Frings. Soc.Ent.1910.25.p.30.
♂ with strongly increased white markings on the forewings so that it has the appearance of the normal female. Hindwings pale cinnamon-red. The female with predominantly white and fawn markings.

ab.fenestrella Wize. Lamb.1936.36.p.183.
The insect fresh and intact, but almost deprived of scales in the centre of the wing.

Saturnia Schrank.

pavonia Linnaeus. Syst. Nat. 1758. Ed. 10. p. 496.
= pavoniella Scopoli. Ent. Carn. 1763. p. 192.
= carpini Schiffermüller. Wien. Verz. 1775. p. 50.
= pavunculus Retzius. Gen. Spec. Ins. 1783. p. 35.

aberrational forms etc.

pavonia Linn. type form ♂ -brownish-grey with weak fascia and ocelli .

ab. rosacea Newnham. Ent. Rec. 1891. 2. p. 198.
♂ & ♀. A brilliant rosy-crimson suffusing the principal markings; the crescent of the ocellus reduced to a broad rich crimson arc and the postmedian line broadly suffused with crimson.

ab. erythrina Schultz. Ent. Z. 1909. 23. p. 37.
♀. The ground colour of the wings, on which the markings stand out distinctly and sharply, is a dull rusty-red, covering the wing surface uniformly.
This must be very close to the preceding, but presumably of a darker red.

ab. postrosacea Bryk. Ent. Tidskr. 1948. 69. p. 142. fig. p. 143. f. 1.
♀ in which the light band external to the dark submarginal band of the hindwings is pale rose and the margin itself is washed with rose; also the white area surround-ing the ocelli is weakly washed with rose.

ab. citrina Gschwandner. Zts. Ost. Ent. Ver. 1923. 8. p. 80.
♀. The ground colour pale citron-yellow.

ab. lurida Gschwandner. Zts. Ost. Ent. Ver. 1923. 8. p. 80.
♀. The ground colour dirty yellow.

ab. brunnea Gschwandner. Zts. Ost. Ent. Ver. 1923. 8. p. 80.
♀. The ground colour yellow-brown.

♂ ab. lutescens Tutt. Brit. Lep. 1902. 3. p. 314.
Hindwings yellow instead of orange, the forewings darker than usual.

♂ ab. osseicolor Cockayne. Entom. 1951. 84. p. 245.
Hindwings smoky bone colour instead of the normal tawny orange. Forewings normal.

ab. alboplaga Gschwandner. Verh. Zool.-bot. Ges. Wien. 1919. 69. p. (71). pl. 8. f. 1-2.
The colour so strongly lightened that the ocelli in the ♂ stand out on all wings on a cream-white, and in the ♀, on a pure white ground .
The main character is the white area on the hindwing of the ♂ which normaly is of a pale orange.

ab. infumata Newnham. Ent. Rec. 1891. 2. p. 198.
Very dark ♂. The dark shade has so far invaded the whole colouring that it has nearly expelled the ordinary orange colour from the hindwings

ab. vidua Schulze. Dtsch. Ent. Z. 1915. p. 458. fig.
♀. Everything normally brown is replaced by black; also the marginal border of all wings is blackish and reddish on its inner side, especially on hindwings. In place of the toothed line there is a narrow reddish line only once distinctly curved, towards the inner margin; at the apex some supernumary red scales.

♀ ab. saturatior Schultz. Ent. Z. 1909. 23. p. 37.
Very dark form of the female. The margins of all wings in contrast to typical examples are intensive black-grey and before the margins a very narrow transverse st stripe of light coloration. The basal area, central area below the ocellus, as also the submarginal area, strongly darkened black-grey, the normal white areas standing out distinctly and sharply from the darker parts. Differs from infumata Newnham by the white parts not being darkened.

♀ ab. fusca Cockayne. Ent. Rec. 1952. 64. p. 98. pl. 4. f. 4.
The whole of the basal part of the forewing is blackish-brown and merges with the dark transverse band internal to the ocellus. With the exception of the white area internal and external to the ocellus the whole of the wing is suffused with fuscous, and the festooned lines are scarcely visible. The inner part of the body is dusky and the outer part blackish-brown. With the exception of the white area internal to the ocellus the whole of the hindwing is suffused with fuscous but all the markings are faintly visible and the border resembles that of the forewing.

♀ ab. nigrescens Cockayne. Entom. 1951. 84. p. 245. pl. 5. f. 6.
The whole insect, head, legs, thorax, abdomen and wings is smoky-blackish-brown, but the usual markings are visible.

♀ ab. paradoxa Cockayne. Ent. Rec. 1952. 64. p. 97. pl. 4. f. 2.
The area from the base to the white area proximal to the ocellus is dark fuscous on both fore and hindwing; the area between the proximal festooned line and the submargi -al line is also dark fuscous on both wings; the subterminal line is dusky and the border is dark; thus the usual pale basal line and the pale festooned line are both absent and the pale median area contrast strongly with the dark area on either side of it.

♂ ab. postfumea Cockayne. Entom. 1951. 84. p. 245.
Forewing with the ground colour dark, the subapical mark dark purple with no trace of pink at apex. The areas on each side of the ocellus and the submarginal line white, the subterminal line pale, the border blackish-brown.

♂ ab. ochreofasciata Schultz. Ent. Z. 1909. 23. p. 37.
Male in which the submarginal fascia of the forewing, which runs from the carmine-red apical spot down to the inner margin, is orange-yellow instead of brown.

♀ ab. laeta Lenz. Ostheldor Schmett. Sudbayerns. 1927. p. 219. pl. 12. f. 2.
Female in which the submarginal band of the forewing is lightened to pale yellow-grey.

ab.flavomaculata Shultz.Ent.Z.1909.23.p.36.
♂ and ♀. The normally carmone-red spot at the apex of the forewing is replaced by an orange or yellow spot.

ab.atromaculata Stattermayer. Zts.Ost.Ent.Ver.1920.5.p.60.
The red apical spot of the forewing almost completely suppressed or replaced by blackwhich is continued in the marginal band. The black costal spot is greatly enlarged and united with the apical spot by a black streak. Hindwing with the marginal band black,lightened towards its inner margin.

ab.flaviocellatus Wild. Entom.1947.80.p.147.pl.2.f.6.
Male in which the eye-spots on all four wings entirely lack the central disc or pupil,the black pigment being replaced by the continuation of the usually narro yellow iris ring,which spreads over the whole area enclosed by the black outer circl with the exception of the blue crescents on the basal side,which remain in their normal position.

ab.obsoleta Tutt.Brit.Lep.1902.3.p.316. (fig.Entom.10.p.1.)
The complete absence of the ocellus on each wing,the markings and colour normal. In the particular specimen described Tutt says one of the nervures of each forewing is absent.

ab.melanopis Stattermayer. Zts.Ost.Ent.Ver.1920.5.p.60.
In the ocelli the red and also blue half-moon parts are absent so that the centre of the eye is only surrounded by the yellow ring. The black margin which encloses the ring is much broadened particularly on the basal side.

ab.melanomatus Cockayne. Ent.Rec.1945.57.p.129.
In both surfaces of fore and hindwings the yellow ring around the central part of the ocellus is replaced by black; the pale semilunar mark in the central part and th bluish crescent are present but indistinct,the scales of the carmine crescent are so mixed with black ones that it can only be seen with a lens. In other respects the markings and colour are normal. Although only a minor aberration the blackness of th ocellus makes it conspicuous.

ab.caeca Stattermayer. Zts.Ost.Ent.Ver.1920.5.p.60.
The "mirror" of the ocellus absent,therefore the centre of the eye is filled entirely with black.
The "mirror" is presumably the lunar-shaped blue mark in the black central eye, the red and blue half-rings on the basal side of each ocellus being present. These latter are absent in melanopis Statt.

ab.makropis Schultz. Ent.Z.1909.23.p.38.
The ocelli unusually large,almost as big again as in the type form,and drawn out in length. The opposite to the following reducta Schultz.

ab.reducta Schultz. Ent.Z.1909.23.p.38.
= micropis Lenz. Ostheldor Schmett.Sudbayerns.1927.p.219.pl.12.f.[illegible].
The ocelli greatly reduced in size,only about half that of the normal.

ab.orbifer Cockayne. Ent.Rec.1952.64.p.97.pl.4.f.3.
See next page.

ab.orbifer Cockayne. Ent.Rec.1952.64.p.97.pl.4.f.3.
On fore and hindwings the festooned lines are displaced towards the base. In the forewing that part of the inner festooned line near the inner margin approaches the dark transverse band which lies internal to the ocellus as in ab.occlusa Braun. It then turns outwards from nervure 2 and running towards the apex touches the ocellus and then turns inwards between nervures 8 and 9,runs along the costa and joins the broad transverse band internal to the ocellus.It thus forms a complete oval or circle.On each forewing an extra nervure arrises from the posterior end of the discocellular nervure and is a duplication of nervure 3,nervure 7 is missing as in normal pavonia.The outer festooned line runs parallel with the inner as far as the carmine-red subapical mark and ends there.Both festooned lines are broad and the festoons less apparent than usual.The ocelli are slightly asymmetrical;both are very large and irregular in shape.The margin of the wing is pale and very broad. On the hindwing the inner festooned line merges with the dark area surrounding the ocellus and swings round towards the costa to join the curved dark line internal to the ocellus.The outer festooned line runs parallel with the inner,curving inwards along nervure 6.The white area between the festooned lines is very broad,especially towards the costa.The ocelli are asymmetrical and abnormal in shape as the figure shows.The marginal band is pale and broad.On the left hindwing nervure 3 branches into two parts.

ab.occlusa Braun.Lamb.1928.28.p.56.pl.Braun.f.3.
In the type form on the hindwing the wavy line which surrounds the ocellus,forms a circle which is widely open on the abdominal side.In this present form it is closed and shows a completely different design.
The figure shows a dark suffusion on the anal edge of the hindwing connecting the inner and outer lines and thus closing the whitish area surrounding the ocellus.

ab.decorata Schultz. Ent.Z.1909.23.p.37.
Hindwing with a row of narrow white half-moon cuneate lunules,red-edged on their outer side,between the brown submarginal fascia and the outer margin. Normally this band is continuous,not broken up into lunules.

ab.defasciata Schultz.Ent.Z.1909.23.p.37.
The two transverse bands of all four wings extinguished.

ab.postdefasciata Lemke. Tijdschr.Ent.1960.103.p.181.
The two transverse lines on the hindwings fail completely,the other markings normal.

ab.subobsoleta Tutt. Brit.Lep.1904.3.p.314.
The markings of the forewings washed out and the hindwings with the usual darker transverse lines almost obsolete.

ab.immaculata Braun. Lamb.1928.28.p.56.
The complete disappearance of the markings of the undulate circle line of the hindwing above,and of the undulate line of the forewing below.

ab.indentata Schultz. Ent.Z.1909.23.p.37.(corrected from identata on p.4.)
= identata Schultz. Ent.Z.1909.23.p.37 in error for indentata.(See p.4.)
= edentata Schultz in Seitz Macro Lep.2.p.233 corrected from identata by L.Jordan but also in error.
The outer usually toothed,or wavy,line of the forewings is not toothed and mostly also broadened.

ab.deflexa Schultz. Ent.Z.1909.23.p.37.
The ocellus of each wing is so drawn out towards the margin that it distinctly touches the postmedian transverse line which is normally well separated from it.

ab.conjuncta Gschwandner. Mts.Ost.Ent.Ver.1933.8.p.80.
On both fore and hindwings the two transverse lines are united in cell 1 through a deep indentation of the outer line.
Presumably the lines meet on the inner margin through a deeper than usual curve of the postmedian line.

ab.conversa Schultz. Ent.Z.1909.23.p.37.
On the hindwings the inner and outer transverse lines unite on the anal margin, normally they are some distance apart.

ab.fasciata Tutt. Brit.Lep.1902.3.p.315. (from fig.Ill.Woch.Ent.1.p.211.f.3.)
The inner and outer bands of the forewing unite directly beneath the ocellus to form a single broad dark carmine-red band,whilst the white area surrounding the ocellus has almost disappeared.

ab.angustata Schultz. Ent.Z.1909.23.p.37.
The dark submarginal fascia of all wings appears greatly narrowed,only half as broad as usual.

ab.albofasciata Lempke. Tijdschr.Ent.1960.103.p.180.
A sharply contrasting white band on the hindwings between the dark submarginal band and the dark outer margin.

ab.latenarginata Lempke. Tijdschr.Ent.1960.103.p.181.
The whole space between the dark submarginal band and the fringes on the hindwings is of a whitish-grey colour.

ab.trafvenfelti Bryk. Ent.Tidskr.1948.69.p.142.fig.p.143.f.2.
♀ On the forewing the dark basal part is not distally sharp-bordered and not decorated by the normal pale transverse line. In its place a rose-reddish wash which hardly stands out. The ocelli broad black-surrounded due to the complete absence of the bluish semi-circle which usually runs parallel to the yellow ring. The postmedian line not dentate but broad and suffused,the pale line next to it rose-red. Hindwing similar in markings.
The main character would seem to be the absence of the pale transverse shade which normally precedes the antemedian dark line.

ab.diluta Lempke. Tijdschr.Ent.1960.103.p.181.
Wings thinly scaled,markings pale,otherwise typical.Especially a female form.

ab.minor Tutt. Brit.Lep.1902.3.p.315.
Small,only 50 mm.in expanse.

ab.pygmaea Chukowsky. Folia Zool.Hydrobiol.(1934-35).1935.7.p.425.
Still smaller than the preceding,the ♂ only 45 mm.
The name unfortunately must stand as it denotes a smaller example than Tutt's.

ab. schulzei Bryk. Arch. Naturg. 1916. 82. A5. p. 65. fig.
Two extra veins in the discoidal cells of both fore and hindwing. See figure.

ab. homophora Bryk. Zts. Ost. Ent. Ver. 1922. 7. p. 2. (fig and descr. Arch. Naturg. 1916. 82. A5. p. 64.)
Aberrative veining.
The description is complicated, see figure.

ab. stefanelliiRostagno. Boll. Soc. Zool. Ital. 1904. 12. p. 122. (stefanelli in error on p.122
(stefanellii in text, p. 123)
On the upperside of the hindwings the two transverse wavy lines which border the antemarginal band do not exist but are replaced by a series of linal-shaped spots, the chestnut lines surrounding the ocellus are almost absent.
Presumably the wavy lines on the inner and outer edge of the antemarginal band, normally continuous, are broken up into short dashes.

ab. luteata Rocci. Atti. Soc. Ligust. 1914. 24. p. 141.